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ABSTRACT

This study looks at the effects that the general education assessment undertaken for the Performance Funding Program has had on general education at the public two-year institutions of higher education in Tennessee. The purpose of the Performance Funding Project was to provide motivation, through financial incentives, to public institutions for increases in quality improvement. Since its inception, the assessment of general education has been one of the standards. Data were collected through three methods: a 21-item questionnaire, participant interviews, and document analysis. The sample consisted of selected faculty and administrators at 14 public two-year colleges whose positions required them to have specific knowledge about general education assessment. Findings from this research show that the institutions have used the results from the general education assessment to make changes in curriculum, instructional delivery strategies and methods, and student learning activities and experiences. At those institutions where the performance funding coordinator provides detailed analyses of general education assessment results in digestible terminology to the proper audiences at key intervals throughout the year, there is more complete usage of assessment results by faculty, staff, and administration. Contains 11 tables. Appended are the survey, interview protocol, interview contact summary sheet, and the document summary form. (CAK)

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ED 429 639

ACTING ON THE POSSIBLE WHILE AWAITING PERFECTION: THE EFFECT OF GENERAL EDUCATION ASSESSMENT AT PUBLIC TWO-YEAR INSTITUTIONS OF HIGHER EDUCATION IN TENNESSEE

A Dissertation
Presented for the
Doctor of Education
Degree
The University of Tennessee, Knoxville

Lori Collette Morrell
December 1996

JC 990 213

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Dr. E. Grady Bogue, Major Professor

We have read this dissertation
and recommend its acceptance.

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Dean of The Graduate School

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DEDICATION

This dissertation is dedicated to the public two-year
institutions of higher education in Tennessee
for the improvement of general education.

ACKNOWLEDGMENTS

There are many faculty and staff at the University of Tennessee to whom I am very grateful for the educational experiences they have provided me. Foremost, I am thankful to my dissertation committee Dr. E. Grady Bogue, Dr. Jeffery Aper, Dr. Katherine Greenberg, and Dr. Kathleen Lawler for their constant support and belief in my abilities. I would also like to thank the Tennessee Higher Education Commission, the Tennessee Board of Regents, and the participants in this research, without whom my data collection would not have been possible. I have also received a great deal of support from my employer Walters State Community College. I wish to thank the administration at Walters State for their support throughout my doctoral program.

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Abstract

This research determined the effect that general education assessment undertaken for the Performance Funding Program has had on general education at the public two-year institutions of higher education in Tennessee. Data was collected for the time period spanning 1982 through May 1996. Data came from three sources: a questionnaire, participant interviews, and document analysis. Participants were public two-year higher education institution personnel knowledgeable of general education assessment and/or the Performance Funding Program. Findings from this research show that the public two-year institutions of higher education in Tennessee have used the results from the general education assessment to make changes in curriculum, instructional delivery strategies and methods, and student learning experiences and activities. While every institution in the study has not consistently used the results of general education assessment to improve all areas mentioned above, all institutions have used the results for the improvement of general education at some point during the time period of the study. Participants said that their institutions intend to continue using assessment results to improve or are looking for ways to begin using the results. Participants also said they desire a multifaceted approach to assessing general education with more institutional control over the instruments used for general education assessment. Data revealed that institutions that provided in-depth analysis of the general education assessment results and a thorough dissemination of the analysis had better utilization of the assessment results. The participants also believe that it would be beneficial for the state to determine a common core of general education competencies students would achieve during the lower division courses.

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CHAPTER ONE

INTRODUCTION

Overview

During the 1980's, known in higher education as the "assessment decade", several national reports were written which had an impact on the assessment of general education. The five most influential reports were *A Nation at Risk* (National Commission on Excellence in Education, 1983), *To Reclaim a Legacy* (National Endowment for the Humanities, 1984), *Involvement in Learning* (National Institute for Education, 1984), *Integrity in the College Curriculum* (Association of American Colleges, 1985), and *Time for Results* (National Governor's Association, 1986). The first report, *A Nation at Risk*, although directed at secondary education, attracted the attention of the higher education community. This report was the beginning of the call for undergraduate reform, assessment of higher education performance, improved efforts for quality, and increased accountability. Reports that followed focused on the need for higher education to assess knowledge, skills, attitudes, and the basic design of academic and student services programs. These reports raised a concern that American higher education was not showing evidence of its coherence, purpose, or success.

The pressure to increase assessment efforts in higher education came not only from the national call for quality. There was also pressure from the federal government, regional accrediting agencies, and state authorities for higher education to place a stronger emphasis on assessment of student outcomes and to undertake the establishment of assessment efforts (Aper, Hinkle, & Culver, 1990). In 1985, the Southern Association of Colleges and Schools (SACS) made a commitment to institutional effectiveness which encompassed the need for more assessment. The SACS' new criteria included statements about how the institutions must define their educational outcomes and how they would assess those outcomes (SACS, 1987). Other factors which also fueled the assessment movement were the rising consumer demand for more information about the quality of education, in light of student loan programs, and the states' desire that institutions become more accountable for what they were doing in higher education program (Astin, 1991). This focus on more accountability reflected the decreased financial resources of higher education typical during the 1980's in most states (Jones, 1985). State authorities were instrumental in including assessment of student outcomes in their agendas (Aper, Culver & Hinkle, 1990).

Assessment in the States

In the literature, the states often cited for using mandates as the impetus to enact general education assessment are Virginia, Florida, New Jersey, and Tennessee. Virginia's state mandate took effect in 1985 (Aper & Hinkle, 1991) and allows flexibility as to the type of assessment an institution can use (Hutchings & Marchese, 1990). Virginia's policy is targeted toward curricular reform by assessing student outcomes (Fuhrman & Genteman, 1993). Florida's state mandated assessment is through a minimum competency based exam taken by all students who attend public institutions or receive state aid. The exam is the College Level Academic Skills Test (CLAST). A student must pass this exam before entering junior level courses or receiving the associate degree (Astin, 1991). The original intent of Florida's exam was quality control (Hutchings & Marchese, 1990). New Jersey created a comprehensive outcomes assessment program known as the College Outcomes Evaluation Program (COEP). The most significant aspect of COEP was the development of the General Intellectual Skills Assessment to be given in the sophomore year (Young & Knight, 1993). Tennessee, the first state to implement a state policy involving student outcomes assessment, mandates general education assessment through the Performance Funding Program (Bogue & Troutt 1980; Banta, 1993). One of the aims of the Tennessee Performance Funding Program is the improvement of the quality of undergraduate general education programs (Van Dyke, Rudolph, & Bowyer, 1993).

The literature also often cites two institutions whose approaches are not the result of a state mandated approach for general education assessment. They are Northeast Missouri State and Alverno College in Wisconsin. General education assessment at Northeast Missouri State was encouraged but not mandated by the state. The assessment program at Northeast Missouri Sate took place during the change of the institution to a liberal-arts university (Banta, 1993). The assessment approach at Northeast Missouri Sate is referred to as the "value-added" approach (Northeast Missouri State University, 1984). Students are assessed for general education skills upon entrance and exit. Test scores from each assessment are compared to determine the "value-added" score at exit in general education skills (Northeast Missouri State University, 1984; Young & Knight, 1993). At Alverno College in Wisconsin, the approach is much more individualized. The assessment at Alverno is competency based. The faculty determines certain competencies; then each student develops a portfolio, and the faculty assess it for those competencies at exit. The assessment is done for improvement and is focused on students (Loacker & Mentkowski, 1993).

General Education

General education includes written communication, oral communication, critical thinking, problem solving, humanities appreciation, mathematics, social sciences, natural sciences (Johnson, 1982) and quantitative reasoning or creativity (Boyer & Ewell, 1988). Other general intellectual outcomes of college, such as the ability to process and utilize new information; communicate effectively; reason objectively; draw conclusions from data; become more objective about values, attitudes, and beliefs; and evaluate arguments critically, are viewed as becoming more important today as factual knowledge alone is becoming obsolete at an accelerated rate (Pascarella & Terenzini, 1991). The purpose of the general education curriculum is to move beyond gaining knowledge for factual recall and move toward the analysis, synthesis, and evaluation of information (Bloom et al, 1956). The emphasis is on the development of analytical and critical thinking skills (Gaff, 1983). Pascarella and Terenzini (1991) report that the greatest effects on critical thinking come from mutually reinforcing experiences rather than isolating the learning to individual course applications. Student involvement in out-of-class activities that reinforce the students' academic abilities also greatly enhance that possibility for development of the general cognitive skills during college (Pascarella & Terenzini, 1991).

"Many educators believe that the assessment of general education skills is the most important cognitive assessment task facing higher education today" (Astin, 1991). Due to the increasing national and state interest in general education assessment, several testing organizations have developed test batteries designed to assess general education (Astin 1991). Assessing general education through standardized measures can be a difficult and uncertain experience, however. Scores from standardized tests cannot indicate why scores are low or high. This can only be learned through detailed knowledge of teaching methods and goals of the institution (Banta, 1991).

Performance Funding/General Education Assessment in Tennessee

Tennessee has been a front runner in the national surge of general education assessment. While being the first state to mandate assessment of general education skills, Tennessee also led the way in realizing the importance of rewarding improvement based on performance. In the mid-1970's, Tennessee based its funding formula for higher education on the number of credit hours generated and the cost per credit hour by academic program and level of program (Bogue & Brown, 1982). There were two chief complaints about the formula. First, it lacked quality assessment. Second, it encouraged the average rather than the excellent. In response, the Tennessee Higher Education Commission (THEC) voluntarily initiated the Performance Funding Project (Levy, 1986). The original purpose of the Performance Funding Project was "to explore the feasibility of allocating some portion of state funds on performance criterion (how effective), as compared to the allocation on activity criterion (how much)" (Bogue, 1976 p.12). Since the first set of standards was developed in 1979, the standards have been revised four times—1980, 1982, 1986, & 1991 (Banta, Fisher, Rudolph & Van Dyke, 1993).). The first full Performance Funding cycle began in 1982. Tennessee presently measures ten standards under the Performance Funding Program.

- Standard one is general education.
- Standard two is the major field test.
- Standard three is the Alumni and Enrolled Student Surveys.
- Standard four is accreditation.
- Standard five is the peer review of non-accreditable undergraduate programs.
- Standard six is the review of masters' programs in the universities or the review of placement at two-year institutions.
- Standard seven is enrollment goals.
- Standard eight is student success.
- Standard nine is mission-specific objectives.
- Standard ten is improvement actions.

The current standards represent a movement in the direction of internal improvement on campuses as opposed to external reporting (Banta et al. 1993). Presently an institution may earn up to 5.45% of its annual instructional budget by focusing on the ten measurable performance standards (THEC, 1992).

Tennessee's assessment of general education for the Performance Funding Program has gained national attention during the assessment movement of the 1980's and into the 1990's. Standard one, general education, "is designed to provide incentives to an institution for improvement in the quality of its undergraduate general education program as measured by the performance of graduates on an approved standardized test of general education" (THEC, 1992, p.1). Until 1992, the state had mandated that the assessment of general education be done by using the American College Testing's College Outcomes Measures Program (ACT COMP). In 1991, Tennessee gave each institution a list of instruments from which to choose the one it wished to use for measuring general education during cycle three (1992-1997). The choices were the ACT COMP, the College Base, the Academic Profile, or the Collegiate Assessment of Academic Proficiency. The assessment of general education that is done as a part of Performance Funding Program in Tennessee is focused toward improving general education. In the fifth year of the present cycle (1992-1997), emphasis within standard ten will be given to peer evaluations of general education programs (THEC, 1992, p.8).

The Performance Funding Program is the longest running assessment for quality improvement program in the nation. Since 1975, when forward thinking discussions began at the THEC to determine if a portion of the state's higher education budget could be linked to improvement rather than enrollment, a great deal of money has been spent on the program. Disbursements to institutions, alone, have exceeded $200 million (Roaden & Goss, 1992). In Tennessee, student performance in general education can mean the difference in a college's gaining or not gaining hundreds of thousands of dollars.

Theory

Alexander Astin (1991) points out that even though there is a great deal of assessment activity in higher education, much of it does not benefit the students, faculty, or administration. Astin (1991) is referring to the "theory of utilization" (p.128). Astin's "theory of utilization" (p.128) has evolved over the past twenty years of his involvement in assessment at both the national and campus levels. The theory is based on the feedback principle. Astin assumes that the "recipient of the feedback is a faculty or staff person who is in a position to use the assessment results to improve" the student development process (p.129).

Astin (1991) states that the proper utilization of assessment data will stimulate actions that will enhance the student development process. These actions may include "changes in curriculum, pedagogical technique, advising procedures, assessment tools, faculty reward system, or . . . the decision to review some aspect of institutional policy or practice" (p.128).

Those practitioners receiving the feedback in higher education are responsible for creating the environment in which students learn. Without proper assessment techniques and proper reporting of results, the only feedback that faculty and staff are often given is from students who may not be representative of the student population. The role of assessment is to provide faculty and staff with feedback that will enhance their understanding of the connections between their actions and student outcomes (Astin, 1991).

Assessment of general education in higher education has taken hold in the nation's colleges and universities in varying formats. Numerous agencies, from the federal government to the individual campuses, have stakes in the performance of undergraduate students on outcome measures. The focus is on the use of results from the assessment measurements. However, improvements from the assessment can only be realized if the results from assessment are connected to the goals at the institutions (Spangehl, 1987).

Problem Statement

In Tennessee, each public institution participates in the Performance Funding Program. The Performance Funding Program rewards institutions monetarily, based on their performance and/or improvement on certain standards. Since the inception of the Performance Funding Project, the assessment of general education has been one of the standards. The purpose of the Performance Funding Project was to provide motivation, through financial incentives, to public institutions for increases in quality improvement (Bogue & Brown, 1982). Reporting the general education standard of the Performance Funding Program requires the assessment of general education. In reporting the assessment, an institution compares its scores with either a national average or its own previous year's scores. In this way, the institution can earn points on the general education standard (THEC, 1992). The scores are not used for comparison between institutions or for accountability measures. The purpose of the assessment of general education for the Performance Funding Program is the improvement of institutions' general education programs.

In assessing students' general education, public two-year institutions of higher education gain a great deal of feedback about their general education programs. The assumption is that the institution's personnel who receive this feedback will use it in the decision making process in programming for general education and the students' higher education experience. This is the rationale for the study. The purpose of this study is to determine the effect of the assessment of general education for the Performance Funding

Program on general education at public two-year institutions of higher education in Tennessee.

Research Questions

The following research questions will give direction to this study.

(1) Has the assessment of general education resulted in changes in the curriculum in general education at public two-year institutions of higher education in Tennessee?

(2) Has the assessment of general education resulted in changes in the instructional methods and strategies used in general education at public two-year institutions of higher education in Tennessee?

(3) Has the assessment of general education resulted in changes in student learning experiences and activities at public two-year institutions of higher education in Tennessee?

The research hypothesis is that the assessment of general education has made an observable difference in general education at public two-year institutions of higher education in Tennessee.

Purpose of the Study

The purpose of this study is to begin to address the question raised by Spangehl in 1987, "The important question is not whether institutions will do assessment, but whether it will mean anything: whether all that data will have any significant connection to important goals and produce any real improvements in our system of higher education" (Spangehl, 1987, p. 35). This study provides knowledge of how public two-year institutions of higher education have used the data from the annual general education assessment for the Tennessee Performance Funding Program to affect changes in general education. The specific areas of focus within general education are the design of the curriculum, the course content within the curriculum, the instructional methods and strategies used, and the effects on student learning experiences and activities.

The present study is unique in that it is the only study of its kind that has focused solely on general education assessment in the public two-year institutions of higher education in Tennessee. While other studies, (Wade, 1989; Banta et al, 1993,) have inquired into the impact of the Performance Funding Program's implementation and effectiveness, neither has solely examined the general education standard. The focus of Banta et al, 1993, was the effectiveness of the Performance Funding Program as a whole at all public institutions across Tennessee. This study examined how the performance funding coordinators viewed standards used as a measure of quality, how well they thought each standard promoted improvement, which standards were most helpful, and how they would change any of the standards to make them more helpful. The focus of the earlier study by Wade (1989) was four-year institutions. Wade's 1989 study employed a case study format to examine the implementation of the "Instructional Evaluation Schedule," as the Performance Funding Program was titled at that time, on three four-year campuses. The present study provides insight into the practical applications of the general education assessment at public two-year institutions of higher education. This study looks beyond the reporting that is done for the Performance Funding Program and focuses on changes that have been made at public two-year institutions of higher education in general education as a result of the use of general education assessment results.

Significance

Nationwide, states have pushed for the assessment of general education skills. Yet there is little systematically gathered evidence that shows these assessments are making any difference in general education in higher education. Tennessee has the longest running systematic state wide assessment of general education. This will provide a historical insight that is not available from other states. The process of general education assessment for the Performance Funding Program is to be used for the improvement of general education at the state's public institutions.

This study contributes to the literature in the field by examining the question of whether the assessment being done on general education skills is making any observable difference in general education programs. Additionally, credibility is added to this study by investigating institutions in the state that has been administering a systematic general education assessment longer than any other state in the nation. The results from this study allow the THEC, the Tennessee Board of Regents (TBR), and the individual public two-year institutions of higher education in Tennessee to know what actions have been taken as a result of the assessment of general education. These results create a shared pool of knowledge about how institutions in the same state have used assessment results to create changes in general education.

Definitions

The term *assessment* traditionally encompasses a range of methods of measurement or evaluation and is not limited to one approach. A glossary of assessment policy terms was developed by the Carol Boyer and Peter Ewell for the Education Commission of the States in 1988. The terms in this glossary are the most commonly used forms in the literature surrounding assessmemt. Therefore, when possible, the glossary has been used for the definition of terms. However, some terms used in this research are beyond what are included in the glossary. In the glossary, the term *assessment* is defined as

> any process of gathering concrete evidence about the impact and functioning of undergraduate education. The term can apply to processes that provide information about individual students, about curricula or programs, about institutions, or about entire systems of institutions. The term encompasses a range of procedures including testing, survey methods, performance measures, or feedback to individual students, resulting in both quantitative and qualitative feedback. (Boyer & Ewell, 1988, p.1)

The most common reference in the literature on assessment is to *college outcomes*. The aforementioned glossary also provides a definition for this term.

> College outcomes assessment is the assessment of the results of undergraduate education. [They] can include cognitive [skills], skills of attitudinal outcomes, postgraduate behavior such as job or graduate school placement or performance, or more general

> impacts on a community, region, or society. (Boyer & Ewell, 1988, p.2)

The ideas of what should be encompassed in *college outcomes* assessment are as varied as the number of scholars (Astin, 1991; Bloom, 1956; Bogue & Saunders, 1992; Bowen, 1978; Chickering, 1969) that have written in the area of assessment in higher education. However, there are common ideas that are consistent among them and with the above definition. Common to most models of "college outcomes" assessment is a section on cognitive development, skills development, attitudinal development, and societal behavior.

The area that has received the most attention in the assessment of college outcomes is general education, also referred to as *general intellectual skills*. *General intellectual skills* encompass "critical thinking, problem solving, advanced communication skills, and quantitative reasoning or creativity, that all students should acquire regardless of institution, major or program" (Boyer & Ewell, 1988, p.2). More prescriptive to the institutions in this study is the must statement used by the SACS. It mandates that the core of studies "must include at least one course from each of the following areas: humanities/fine arts, social behavioral sciences, and natural science/mathematics" (SACS, 1995, p.13). The TBR has outlined *general education skills* to include six semester hours of composition, nine semester hours of humanities, six semester hours of American history (three hours of Tennessee history may be substituted if available), nine semester hours of natural/physical sciences and mathematics (which must include at least one year in science and at least one semester in mathematics), and two semesters of physical education activity courses (State Board of Regents, 1987, p.1).

Another term that is found throughout the literature on assessment is the term *effectiveness*. Peter Ewell (1992) has defined this term to mean the "fit" between institutional purpose and performance. In relation to general education, the "fit" would be between what an institution says its students are learning and what the student outcome measures say the students are learning. In the publication Community Colleges: Core Indicators of Effectiveness (1994), *effectiveness* is referred to as consisting of three "P's": publics, performance, and perception. "Effectiveness suggests that a college has a discernible mission, is producing outcomes that meet constituency needs, and can conclusively document the outcomes it is producing as a reflection of its mission" (p.8).

The focus of this research is the general education assessment that is done as a requirement for the Tennessee Performance Funding Program. In general terms, *performance funding* means the "allocation by a funding authority of additional non-base funding to institutions or sub-units within institutions on the basis of specified performance, as indicated by assessment results" (Boyer & Ewell, 1988, p.4). The general education assessment as a specified performance for improvement standard has been with the Tennessee Performance Funding Program since its first complete cycle in 1982.

Delimitations

This study determined the effect the process of general education assessment, undertaken as part of Tennessee's Performance Funding Program, has had on general education at public two-year institutions of higher education. The fourteen public two-year institutions of higher education in Tennessee were the data collection sites. Twelve of the institutions are public two-year community colleges and two institutions are two-year technical institutes. These institutions all offer the Associate of Science (A.S.) degree, the Associate of Applied Science (A.A.S.) degree, and/or Academic Certificate programs. By the TBR Policy, each A.S. degree must include all of the thirty-two hours of general education required for a baccalaureate degree, within the minimum sixty-four hours of college credit required for the A.S. degree. The A.A.S. degree and Academic Certificate programs are each required to designate at least twenty-five percent of each program's total hours as general education. Associate of Applied Science programs require between sixty and seventy-two hours of college credit. Academic Certificate programs require a minimum of twenty-four hours of college credit (State Board of Regents, 1987). This study was centered on two-year institutions. No four year institutions were included.

Data available from 1982 through May of 1996 was gathered and analyzed. This allowed the examination of two funding cycles. A performance funding cycle in Tennessee lasts five years. Cycle one was from 1982 through 1987. Cycle two was from 1987 through 1992. The present cycle began in 1992 and will go through July, 1996). This study covered through May, 1996. The study of this thirteen year period provided a longitudinal view of general education assessment. The study's purpose was to identify changes in general education at public two-year institutions of higher education and the relationship of these changes to the use of general education assessment results.

Because the focus of this study was the effect of the general education assessment undertaken at Tennessee public two-year institutions of higher education, the surveys and interviews used to collect data were given to those persons who had been directly involved with the Performance Funding Program and/or the process of general education assessment for the Performance Funding Program during the time period from 1982 through May of 1996. Additional data on changes in general education were gathered through a review of past Performance Funding reports, college catalog statements on curriculum requirements, catalog statements of general education goals, and other documents that were made available from the individual campuses.

Limitations

Since the inception of the Performance Funding Project, there have been personnel changes at all levels, from the THEC to the individual campuses. Maintenance, availability, and extensiveness of records of past Performance Funding reports affected data collection. This study was relatively limited due to personnel changes that have taken place in thirteen years. The knowledge base and memory of individuals who are currently involved in the process of general education assessment further affected the gathering of data.

Voluntary participation in the study also brought with it the possibility of a low response rate to surveys and interview participation. A cover letter of support for the research from the TBR enhanced the response rate because of the importance the TBR's involvement conveyed to the institutions about the institutions' participation in the study. The impact with which the TBR's involvement might influence the types of responses received was minimized by the TBR's stating in a supporting cover letter that it was interested in candid responses to the impact of general education assessment. Confidentiality of the responses to surveys and interviews enhanced the response rate.

The catalog review portion of this research brought the limitations of general education statements in institutional catalogs and curriculum requirements. A catalog is the public record of the institutions' goals for general education, but may not be the actual account of what is done. Therefore, it was included for examination in this type of study. The fact that this study is delimited to two-year public institutions of higher education in Tennessee confines the generalizabilty of conclusions to general education at public two-year institutions.

CHAPTER TWO

REVIEW OF THE LITERATURE

The assessment movement that began in the 1980's brought the interest in the assessment of general education skills of undergraduate students in the United States to the forefront. During this time, the interest in a greater knowledge about what general education skills undergraduate students were learning in the nation's colleges permeated assessment in the higher education community at the federal, state, and local levels. Assessment projects within the higher education institutions of each state are at the core of the national assessment movement.

Tennessee higher education has been a leader in general education assessment through the Performance Funding Program. This program has led Tennessee to have the longest running performance for improvement initiative in the nation. The assessment of general education skills has been a criterion for improvement measurement since the project's inception in 1978. Since the first complete cycle of Performance Funding began in 1982, a great deal of assessment of general education skills has taken place in Tennessee's higher education institutions. The question to be asked is, have the results of these assessments been used to impact general education programs?

Assessment

Historical Perspective

The 1980's, the assessment decade, was not the first period in recent history to be concerned with assessment of student learning. Periods of assessment in higher education have historically followed periods of rapid enrollment expansion. Two periods of enrollment expansion were from 1918-28 and from 1952-83. During both periods, the number of students increased, and the type of students and programs in higher education changed (Resnick & Goulden, 1987).

The first enrollment expansion period was followed by the assessment phase of the late 1920's through the 1930's. Then, as is happening presently, assessment was being called upon to improve undergraduate education programs. This brought about the assessment that was referred to as comprehensive exams. The comprehensive exams focused on the student as a unit (Resnick & Goulden, 1987). Presently assessment focuses on the curriculum, programming, and the institution (Bogue & Saunders, 1992). These assessments are focused on student outcomes in academic programs as well as general education. Assessments are also focused on the linkage between what the institutions claim to be doing in their goal statements and what they are actually doing as measured through performance criteria and accreditation. The second period of enrollment expansion occurred from 1952 to 1983, with the most intense growth coming from 1952 to 1975 (Resnick & Goulden, 1987). This phase of enrollment expansion was followed by the current assessment phase that began in the early 1980's.

Comments that were made during the 1920's and the 1930's are still being echoed today. Reviews of comments made during the first assessment movement phase show that many "educators complained about the new incoherence of the curriculum, the low abilities of students, and the overcrowding of institutions." (Resnick & Goulden, 1987, p.79). There was also concern about the quality of instruction. "Generally speaking, students have been herded into larger and larger classes, often under instructors or student assistants lacking experience." (Jones, 1933, p.14). A more recent comment by Ernest Boyer (1987) said that "[T]here is a growing concern that the pieces of a college education do not add up to a coherent-whole" (p. 251). In 1984, the Study Group on the Condition of Excellence in American Higher Education said that "The realities of student learning, curricular coherence, the quality of facilities, faculty morale, and academic standards no longer measure up to our expectations" (p.8).

Since the first phase of higher education assessment in the late 1920's and the 1930's, much progress has been made in the area of assessment. A great deal of this progress occurred from 1980 to 1990. One impetus for this progress can be found in the national call for quality.

National Trends

In the 1980's, national reports influenced the realization of the need for more assessment in higher education. The five most influential reports were *A Nation at Risk* (National Commission on Excellence in Education, 1983), *To Reclaim a Legacy* (National Endowment for the Humanities, 1984), *Involvement in Learning* (National Institute for Education, 1984), *Integrity in the College Curriculum* (Association of American Colleges, 1985), and *Time for Results* (National Governor's Association, 1986). These reports focused mainly on a desire for knowledge about the quality of undergraduate education. More specific was the concern about the quality of the general education component of undergraduate curriculum. These reports also focused on concerns from state legislatures, governors, higher education coordinating boards, and individual institutions about declining enrollments and limited financial resources.

A Nation at Risk (1983) was the beginning of the call for improved quality, increased accountability, and undergraduate reform. *A Nation at Risk* warned of ill-prepared high school students' entering higher education. This report was confirmed by a 1984 report by the College Board that showed a decline in entrance SAT scores from 1972 to 1984 (Holtan, 1988). As a result of the College Board report, the prescribed high school curriculum for college bound students was developed.

Soon to follow *A Nation at Risk* was a series of reports written between 1984 and 1986. The first of these was *Involvement in Learning* (1984). This report, heavily influenced by the ideas of Alexander Astin, stated the need for higher education to assess knowledge, skills, attitudes, and desire for academic and student services programs. An additional recommendation was that each institution assess progress toward student development, emphasize undergraduate teaching, and set priorities.

In 1984 and 1985, two other national reports, *To Reclaim a Legacy* (1984) and *Integrity in the College Curriculum* (1985), focused on the point that the growth in professional programs and specialization areas had caused the interest in general education skills to decrease. Both reports called for an emphasis on liberal learning. In 1985, another report by the Southern Regional Educational Board (SREB), *Access to Quality Undergraduate Education*, warned that "[T]he quality and meaning of undergraduate education have fallen to a point at which mere access has lost much of its value" (SREB, 1985).

In 1986, the National Governors' Association report, *Time for Results*, called for higher education to strengthen assessment activities. Specifically, this report highlighted the need for assessment of student learning, program effectiveness, and institutional accomplishment of mission. Of all the national reports that have addressed quality in education, the National Governors' Association focuses the most attention on the need for improved assessment practices. In 1988, the National Governors' Association followed the *Time for Results* report with a study of the fifty states *Results in Education*. This study revealed that almost all states were involved in some major effort to expand assessment efforts.

The combined efforts of national and state leaders in education and government have propelled the surge in assessment of student outcomes. Although the concerns began on the national level, the momentum to improve the quality of undergraduate education is still strong in the states. Assessment of student learning outcomes has been and continues to be paramount to the issue of quality in higher education. In concert with the national call for quality was a change in standards for accreditation that began with the Southern Association of Colleges and Schools (SACS), the organization which accredits higher education institutions in the southern region of the United States.

The changes that took place with the SACS began in 1985 and were included in the *Criteria for Accreditation* published in 1987. The *Criteria* stated that "[U]ndergraduate degree programs must contain a basic core of general education courses (For degree completion in associate programs, a minimum of 15 semester hours; in baccalaureate programs, a minimum of 30 semester hours)" (SACS, 1987 , p.14). The criteria specifically state that

> One component of this core must be courses designed to develop skills in oral and written communication and in computational skills. Components of the core must be drawn from each of the following areas: humanities or fine arts, the social or behavioral sciences, and the natural sciences, or mathematics. Because the computer is an important means of both communication and computation, institutions should provide basic computer instruction for their students. (p.14)

A later "must" statement in the SACS criteria that had an impact on assessment in the southern region of the United States was that "[T]he institution must define its expected education results and describe how the achievement of these observable results will be ascertained." (SACS, 1989, p.14). The SACS is the most prescriptive of the accrediting agencies, and the present SACS criteria maintain the same commitment to assessment of general education skills (SACS, 1995). Although the movement toward the assessment of general education skills has roots in the southern region, the trend to assess general education skills also took hold in many states in other regions throughout the nation.

Assessment in the States

In the national reports that were published in the 1980's, there was a common theme that higher education needed to improve its assessment practices (Astin, 1991). The reports were followed by changes in accreditation criteria and also by states' efforts to increase assessment. There was a desire for better measures of accountability to justify the funding received (Holtan, 1988). The desire for more accountability was reflective of the decrease in financial resources that occurred during the 1980's in higher education. Holding higher education institutions accountable for the educational outcomes of graduates was also a possible avenue for increased savings in state funds. By making higher education institutions accountable, state legislatures could gain answers to the questions of,

> How effectively are the . . . [institutions] using the money we already give them? How much are students really learning? Are they developing the kinds of talents and skills that are needed by our state's economy? And how effective are our institutions in comparison to private institutions or to institutions in other states?". (Astin, 1991, pp. 216-217)

In the literature, there are examples cited (Astin, 1993; Astin, 1991; Banta, 1993; Erwin, 1991; Ewell, 1987; Ewell & Boyer, 1988; Hutchings & Marchese, 1990) of types of assessments of general education. The most widely cited colleges and states for types of general education assessment are James Madison University in Virginia, Alverno College in Wisconsin, Northeast Missouri State in Missouri, Kean College in New Jersey, the state of Florida, and the University of Tennessee. These colleges and states use varying forms of assessment to measure what students have learned in general education.

Virginia has a state mandate that took effect in 1985 (Aper & Hinkle, 1991). In keeping with Virginia's philosophy towards institutional autonomy, the mandate is flexible about the type of assessment an institution can use (Hutchings & Marchese, 1990). Virginia's policy targets curricular reform by requiring the assessment of student outcomes. It mandates that institutions assess student outcomes in certain categories, such as general education. The policy allows the institutions to use institutionally chosen instruments (Fuhrmann &

Gentemann, 1993). Funding is in the form of a Funds for Excellence Program that entices the institutions to develop programs that will ensure quality. Institutions compete for the funds (Ewell & Boyer, 1988). Specific to James Madison University, which began its own assessment program in 1984, is the inclusion of the co-curricular (out-of-class) student development assessment in addition to academic skills assessment. The results of these assessments have been used extensively to improve student development programs (RiCharde, Olney & Erwin, 1993).

New Jersey created a comprehensive outcomes assessment program that is known as the College Outcomes Evaluation Program (COEP). This program was the result of a state mandate to improve the quality of undergraduate education (Ewell & Boyer, 1988). The aim of the COEP was accountability and improvement. The most significant aspect of the COEP was the development of the General Intellectual Skills Assessment that was to be given in the sophomore year. Although the COEP has since lost its funding through the state, campus-based outcomes assessment activities still show the effects of its short life (Jemmott & Morante, 1993). In 1985, prior to the development of the COEP, governor Thomas Kean challenged all state colleges to develop a comprehensive assessment plan (Young & Knight, 1993). Kean College presented a plan to assess programs and accepted a $3.8 million challenge. The intent of the program was to improve the academic and personal development of the students and faculty (Hutchings & Marchese, 1990).

In Florida, all students who attend public institutions or receive state aid are required to pass the College Level Academic Skills Test (CLAST). This is a state-mandated minimum-competency barrier exam that blocks a student from entering junior level courses or from receiving the associates degree unless the student performs at a certain level of general education skills (Astin, 1991). The original intent of this test was quality control. While this minimum competency exam is used in Florida, it has questionable usefulness as far as improvement (Hutchings & Marchese, 1990).

Tennessee was the first state to implement a state policy that involved student outcomes assessment (Banta, 1993). The policy was adopted in 1979 after a five year pilot project (Bogue & Saunders, 1992). One aim of the Performance Funding Program was the improvement of the quality of undergraduate education. The Performance Funding Program provided a monetary incentive for institutions on the improvement measure of certain criteria (Van Dyke, Rudolph, & Bowyer, 1993). The University of Tennessee (UT) centered its efforts around general education assessment, achievement in the major, quality of academic programs, and quality of services. In focusing on these topics, UT benefited from improved student outcomes, increased faculty interaction, stimulation of thinking, and improvement of student programs and services (Banta & Fisher, 1986).

Alverno, a small private liberal arts college in Wisconsin, uses a competency-based assessment model. This model defines eight broad-based student-outcomes competencies. Each student is assessed individually on six pedagogical levels of the eight competencies. Students must perform on behaviorally based faculty designed instruments. The abilities instruments and the process are validated internally and externally. The assessment is done for improvement and is focused on students (Loacker & Mentkowski, 1993).

Northeast Missouri State, while becoming a liberal arts university, used assessment as a catalyst for the change (Banta, 1993). The approach used was the value-added format, which compares students' entrance test scores with the same students' scores on exit tests at graduation (Northeast Missouri State University, 1984). Northeast Missouri State also focused on norm-referenced interpretations that centered around demographic variables, standardized achievement, ability, and attitudinal data (Young & Knight, 1993). The college's assessment resulted in improved faculty morale, greater student satisfaction, and better documentation of its improvements to outside agencies (Hutchings & Marchese, 1990).

As discussed in (Erwin, 1991; Banta, 1993; Astin, 1991) other institutions that followed the initial assessment wave were King's College in Pennsylvania, South Dakota State University, Ball State University in Indiana, Ohio University, Rhode Island College, Clayton State College in Georgia, and the State University of New York at Plattsburg. Each of these institutions has its own approach to assessment. The focus of colleges and states at the forefront of the assessment movement is the general education skills assessment.

General Education

Historical Perspective

General education can be traced to the Greeks in the fifth century B.C. The Greeks maintained that general education, then referred to as liberal education, occurred prior to the professional studies and included basic quantitative and verbal skills. As colleges were established in America, the curricula were influenced by Oxford and Cambridge which had their roots in the general education passed down from the Greeks (Conrad, 1983). The original curricula, which had a strong emphasis on Greek and Latin, were expanded to include English language and literature, history, philosophy, modern foreign language, and science (Brubacher & Rudy, 1976).

In 1828, the Yale Report set forth a unified American statement on the nature of general education. The basic premise of this influential report was the development of the "whole man". It was a stumbling block to curricular reform (Brubacher & Rudy, 1976). In 1862, the Morrill Act (the Land Grant Act) began the movement to curricular reform. The influence of the German universities was seen in this curricular reform. There was a greater emphasis on specialization subjects. In the late nineteenth century, the elective system further challenged the general education curriculum. By the beginning of the twentieth century, the undergraduate general education system was in a state of disarray from the many modifications it had gone through(Brubacher & Rudy, 1976).

The twentieth century brought a series of reforms known as the general education movement (Conrad, 1983). These reforms began the distribution system in which students were able to choose courses they wanted to take in the divisions of humanities, social studies, and natural sciences. The attempts at curricular reform during the 1920's led to a restructuring of the universities into divisions during the 1930's. Over time, universities developed lower division faculty that taught only general education courses and upper division faculty that taught specialization courses. Between 1920 and 1940 many colleges established full scale general education programs (Rudolph, 1977). The advent of general education programs was in concert with the first assessment phase in general education.

In the mid 1950's, approximately one half of the colleges in the United States had attempted curricular reform to revitalize the general education curriculum. By the 1970's, the general education curriculum had been reformed and revitalized almost into non-existence as compared to its original structure. It was during the mid-1970's that prominent figures in the higher education community (Bok, 1974; Carnegie Foundation for the Advancement of Teaching, 1977; Cohen & Brawer, 1982; Johnson, 1982) pronounced a great concern for the status of general education. This surge of interest in general education from the national level lead to an increased amount of time and attention being spent to study and reinvigorate general education.

Presently, a general education curriculum consists of the study of liberal arts and science in an integrative way (Ewell, 1987). General intellectual skills include written communication, oral communication, critical thinking, problem solving, humanities appreciation, mathematics, social sciences, natural sciences (Johnson, 1982) and quantitative reasoning or creativity (Boyer & Ewell, 1988). Additionally, skills in processing and utilizing new information, communicating effectively, reasoning objectively, drawing conclusions from data, becoming more objective about values, attitudes, and beliefs, and evaluating arguments critically are becoming more important today as factual knowledge alone is becoming obsolete at an accelerated rate (Pascarella & Terenzini, 1991).

The Format of General Education

From 1967 through 1974, Robert Blackburn conducted a study of 210 four-year and 61 two-year institutions that analyzed degree requirements with specific attention to general education requirements. In 1980, the Carnegie Council on Policy Studies in Higher Education conducted the Carnegie Catalog Study that examined general education requirements from a large sample of institutional catalogs. At this same time, a third study was conducted by James Hammons that surveyed deans of community colleges about the components of their general education programs. These three studies when examined together provide trends about the amount, structure, and content of general education at two-year colleges from 1967 through 1980 (Conrad, 1983).

From these studies, it was found that from 1967 through 1980 there was a decline in the amount of coursework required in the general education curriculum. The Blackburn and the Carnegie studies showed that almost all community colleges used the distribution approach to general education. The distribution approach includes a few required courses, a limited number of elective courses, and a large number of distribution courses in specific areas of general education. Aside from one or two required courses, most community colleges have moved away from any general-education core. In the area of content, all three studies (Blackburn & others, 1976; Carnegie Catalog Study, 1980; Hammons, Thomas, & Ward, 1980) found that the community colleges, beyond a couple of courses in English and physical education, allowed students to use the distributional approach to choose general education courses. In the distributional approach students are given categories, made up of courses listed that will satisfy an area of distributional requirement and cover certain general education skills, from which to select their general education courses from.

A more recent study by Hurtado, Astin, and Dey (1991) found that there are three distinct structures of a general education curriculum: the true core, the major dominant, and the distributional. A "true core" general education curriculum consist of a core of designated courses that an institution has determined will provide the general education skills that it's students should have. A major dominant curriculum is a set of general education courses that an institutional department has determined will provide a certain major field of study the general education skills those students in that major will need to be able to function well in their chosen field. Findings show that the true core and the major dominant account for only two and four percent respectively of general education programs. The clear majority, ninety percent, of higher education institutions use the distributional approach. Other findings from this study show that within the distributional approach twenty-two student outcome variables of general education were not influenced by the structure of the curriculum. In direct contrast, the true core, using the interdisciplinary approach, had a direct positive impact on the twenty-two student outcome variables of general education. This positive influence is attributed to the common experience for discussion provided by a common learning environment (Astin, 1993).

General Education Assessment

General education assessments attempt to determine how effectively graduating students can use their basic general education skills to accomplish certain tasks or answer questions (Astin, 1991). Evidence (Blunt & Blizard, 1975; Brethower, 1977; Gustav, 1969) suggests that much factual material is forgotten soon after it is presented. Any lasting effect from collegiate education may come from acquired general intellectual skills and the synthesis and integration of knowledge (Gaff, 1983). These competencies are what allow students to process or "utilize new information, communicate effectively, reason objectively, draw conclusions from data, be objective about attitudes and beliefs, and make reasonable decisions" (Pascarella & Terenzini, 1991, p.115).

In considering colleges' attempts to assess general education skills, Banta (1993) says that institutions are in a dilemma because their aim is to develop student proficiency in critical thinking, problem solving, reading, writing, and scientific reasoning. However, there is not a general education core at most colleges that ensures that all students have been exposed to the same core of courses to measure learning from freshman to senior year. Because of the increasing national and state interest in student outcomes assessment in the 1980's, several testing organizations developed assessment instruments specifically tailored to assess general education (Erwin, 1991). Such instruments are the American College Testing's College Outcomes Measures Program (ACT COMP), the Educational Testing Service's Academic Profile, the ACT Collegiate Abilities Assessment Profile (ACT CAAP), and the College Base (CBASE) developed by Steven J. Osterlind at the University of Missouri-Columbia. Each instrument is designed slightly differently to measure general educational skills (Astin, 1991)

The ACT COMP is designed to assess a student's ability to apply facts and concepts to work, family, and community roles. The ACT COMP assesses the process areas of communication, problem solving, and value clarification, and the content areas of functioning within social institutions; using science and technology; and using the arts (Astin, 1991). The Academic Profile and the ACT CAAP are more subject oriented and assesses students in the general education skills areas of writing, reading, math, and critical thinking. The critical thinking portion of the Academic Profile focuses on evaluation and reasoning about issues in the areas of humanities, social sciences, and natural sciences (Jacobi, Astin & Ayala, 1987). The College Base is a criterion-referenced assessment that assesses proficiency in English, math, science, and social studies, along with three cross-disciplinary cognitive competencies. The cross-disciplinary cognitive competencies encompass interpretive reasoning, strategic reasoning, and adaptive reasoning (Osterlind, 1989).

In examining the nature of these instruments (Astin, 1991; Baird, 1988; Ewell 1984), it is evident that the institution's mission, purpose, and structure of the general education program should be considered in deciding which assessment instrument a college should use to assess student outcomes in general education. Some colleges determine that none of the commercially developed instruments meet their needs and find it more beneficial to use a locally developed instrument. The process of trying to develop an assessment instrument is how two of the colleges that are front-runners in the assessment movement, Alverno and Kean, developed curricular revisions in general education programs (Astin, 1991).

A 1989 review of the list of project proposals for the Fund for the Improvement of Postsecondary Education by Banta revealed a dozen ongoing studies of how to improve general education assessment. Banta (1993) reports that in her visits to campuses around the nation she has found many more unfunded projects taking place to improve general education assessment. However, there are still difficulties associated with the use of standardized tests for general education assessment. The difficulties are with the norm groups used, the inability to measure approaches to general education delivery, and the inability of standardized tests to indicate why scores are low or high. If information is to be determined about why test scores have improved or not improved, a detailed analysis of teaching methods, course content, and institutional goals for general education should be evaluated (Banta, 1993).

The following are examples that indicate both the positive and the negative information about assessing general education with standardized assessment instruments. A study was done to assess general intellectual skills of sophomores at the community college level, as measured by the ACT COMP. It also compared those scores to freshmen scores, when the groups were matched by sex, age, and curriculum. It found that sophomores had significantly higher scores than freshmen (Capoor & Gelfman, 1988). Forrest (1982) found that the distinguishing factor between the institutions with large gain scores and the institutions with small gain scores as measured by the ACT COMP was a balanced curricular emphasis on general education at the institutions with the larger gain scores. Conversely, a study completed in Washington by Robert Thorndike found that the ACT COMP, the Academic Profile, and the CAAP were not appropriate measures of general education skills because they did not measure separate academic abilities, and they were not sensitive to other college experiences (Banta, 1991). A similar study done by the University of Tennessee, Knoxville, using a content analysis of the same three tests, found that the tests did not measure student mastery of more than 30% of the knowledge and goals specified in general education. A content analysis of the College Base provided only slightly more encouraging results. However, the College Base does not cover attitudes and values (Banta, 1991).

The national movement to assess general education skills has resulted in most states' developing some type of assessment of student outcomes. In Tennessee's Performance Funding Project, general education was a core focus in developing criteria for performance improvement. As pilot projects were developed, "[T]he most universally held concern centered on what constitutes essential knowledge and skill for a college degree" (Bogue, 1976, p.16). A document entitled The Competent College Student, 1977, was developed. This document described the achievements that should be expected from a college student and outcomes to be derived from a college education. The document was distributed throughout not only Tennessee, but also the rest of the nation. It was not sent as a policy statement, but rather to encourage faculty to develop statements of general education skills. (Bogue, 1976).

Performance Funding

Historical Perspective

The state of Tennessee has the longest running state-mandated assessment of general education in the nation. What would eventually become Tennessee's Performance Funding Project resulted as the attempt to answer a question asked by Dr. John Folger, who was in 1975 the Executive Director of the THEC. The question centered around "whether we ought to look at different ways of allocating funds in the public sector, and whether it might be possible, or even desirable, to allocate funds on a performance criterion as compared to an enrollment or activity criterion" (Bogue, 1976 , p.2). Dr. Folger's question came from the same area of concern that was occupying many other minds in higher education at the time. Allotment of funds in higher education, for the large part, was based on growth of the institutions (Bogue, 1976). However, the end of enrollment growth could be seen in the future (Levy, 1986).

During the mid-1970's, it became evident to higher education officials that the enrollment boom brought on by the baby boomers was going to equalize, but the spending of institutions would not likely equalize with the enrollments (Levy, 1986). Across the United States, the education community was beginning to focus more on the quality of education than the quantity of those being served (National Governor's Association, 1986). There was also a concern that the public institutions become more accountable for expenditures of resources (Southern Regional Educational Board, 1988).

In Tennessee, the THEC has the responsibility to be the advocate for and interpreter of higher education to the state administration and legislature and through them to the citizens of the state (Roaden & Goss, 1992;). Given this responsibility, the THEC needed to decide how it was going to respond to the situation of slower or no growth in enrollment. In the mid-1970's, Tennessee's funding formula for higher education was based on the number of credit hours generated, the cost per credit hour by academic program, and level of program (Bogue & Brown, 1982). The formula lacked quality assessment, and it thus encouraged the average rather than the excellent. In response to meeting the challenge of declining enrollments, a continued need for money, and a desire to improve undergraduate education, the THEC initiated the Performance Funding Project (Levy, 1986).

The Performance Funding Project

The basic premise underlying the Performance Funding Project was the allocation of funds on a performance criterion. The object of the Performance Funding Project was not to change completely the funding formula that was in effect in 1975-76 and before. Funds would continue to be allocated on the basis of enrollment by field, but other avenues would be built into the formula that would promote performance improvement.

In 1975, grants from the Kellogg Foundation, the Ford Foundation, the Fund for the Improvement of Postsecondary Education, and an anonymous Tennessee foundation were garnered to begin to develop the standards for performance funding (Bogue, 1976). By July 1976, each institution in the state had been invited to submit a pilot project proposal. The THEC approved twelve proposals in 1976 for participation. In the spring of 1978, the pilot projects' final reports were submitted (Roaden & Goss, 1992).

In October of 1979, the THEC revised the funding formula and implemented it in the fall appropriations cycle. Since the Performance Funding Project was officially over, the new policy was called the Instructional Evaluation Schedule. To fund the Instructional Evaluation Schedule, the THEC added about two million dollars to its statewide appropriation request. This would allow each institution to earn up to two percent of the instructional component of its academic and general budget. The figure of two percent was determined to be large enough to provide the incentive necessary to get attention placed on performance, but it was not so large as to impede any institution (Bogue & Brown, 1982).

The first set of performance funding standards piloted in fall 1980 were (1) accreditation (2) general education (3) program performance outcomes (4) satisfaction indices and (5) evaluation-planning action for renewal and improvement (Bogue & Brown, 1982). Along with the new idea about how the colleges in the state of Tennessee would receive a portion of their funding came the idea that these colleges would know as much about their students when they exited the institutions as when they entered the institutions. In the first pilot year, 1980, only four of the twenty-three institutions gathered such data. By 1981, the second year of the pilot cycle, sixteen institutions had exit data on graduates in general education (Bogue & Brown, 1982).

Until the third funding cycle that began in 1992, the THEC had mandated that the instrument to be used for general education assessment be the ACT COMP. In 1991 the THEC gave every institution the chance to choose the instrument that it would use to measure general education. The institutions could choose from ACT COMP, the College Base, the Academic Profile, or the CAAP. Some colleges chose to stay with the ACT COMP; others switched to different instruments. The majority that switched chose the College Base.

The standards that came into effect in 1992-93 and will remain in effect through 1996-97 are listed in Table 2-1 on page 40. Each standard is worth 10 points for a total of 100 points (Roaden & Goss, 1992). Each institution must turn in a report yearly to the THEC through the TBR to report the progress towards each standard.

Table 2-1 Performance Funding Standards Description

Standard	Max. No. Points	Title	Description
1	10	General Education	"This standard is designed to provide incentives to an institution for improvement in the quality of its undergraduate general education program as measured by the performance of graduates on an approved standardized test of general education" (THEC, 1992, p.1).
2	10	Major Field Test	"This standard is designed to provide incentives for institutions to improve the quality of major field programs as evaluated by the performance of graduates on approved examinations" (THEC, 1992, p.1).
3	10	Alumni and Enrolled Student Surveys	"This standard is designed to provide incentives for institutions to improve the quality of their undergraduate programs as evaluated by surveys of recent graduates and presently enrolled undergraduate degree students" (THEC, 1992, p.3).
4	10	Accreditation	"This standard is designed to provide incentives for institutions to achieve and maintain program accreditation" (THEC, 1992, p.4).
5	10	Peer Review of Non-Accreditable Undergraduate Programs	"This standard is designed to provide incentives for institutions to improve the quality of their undergraduate programs as evaluated by external reviews" (THEC, 1992, p.5).
6	10	Review of Masters Programs in the Universities or the Review of Placement at Two-Year Institutions	"This standard is applied differently to universities and two-year institutions. For universities, it is designed to provide incentives for institutions to improve the quality of their master's degree programs as evaluated by external reviews. For two-year institutions, it will provide incentives to continue to improve job placement of career program graduates" (THEC, 1992, p.5).
7	10	Enrollment Goals	"This standard is designed to provide an incentive for institutions to pursue worthy enrollment goals. Two types of goals are used: (1) minority enrollment (up to five points) and (2) mission related goals (up to five points)" (THEC, 1992, p.6).
8	10	Student Success	"This standard is designed to provide incentives for institution's in assuring student success as reflected by graduation and retention rates" (THEC, 1992, p.7).
9	10	Mission Specific Objectives	"This standard is designed to provide incentives for institution's success in the strategic planning process" (THEC, 1992, p.8).
10	10	Improvement Actions	"This standard is designed to provide incentives for institutions to identify and implement measures to correct weaknesses identified through the Performance Funding Program. In the fifth year of the cycle, emphasis will be given to peer evaluations of general education programs" (THEC, 1992, p.8).

Tennessee's Performance Funding Program has several distinguishing characteristics that have led to its success. First, the program was initiated through the state higher education community and was not imposed through a legislative mandate. Second, much planning and pilot testing were done prior to implementation. Third, the program is constantly being revised and reviewed. Another characteristic of the program is that it is based on positive incentives for quality improvement and not on negative sanctions. Also, the incentive funds are available to campuses for flexible purposes and are not earmarked through a central organization for a specific purpose. Finally, the primary focus is on teaching and learning, which are the primary functions of higher education, and not on organization and management (Roaden & Goss, 1992).

Theory

Beginning in the 1980's, individual institutions became more involved in the assessment of student outcomes in general education. However, there was disagreement among those working in higher education as to whether the assessment that was being done is going to end in results (El-Khawas, 1990). Among those voicing concern was Spangehl (1987). A great deal of assessment is being done, but is it used to benefit the students, faculty, and administration at the institutions where it is done? The basis of the concern referenced by El-Khawas and Spangehl is referred to by Alexander Astin (1991) as the "theory of utilization" (p.128).

The core of Astin's theory is a feedback principle. If assessment results are to make a difference, they must be used. The data must be fed back to the faculty and staff who are in a position to use the data from the assessment of student outcomes. In this theory, Astin (1991) refers to assessment as "a technology that educational practitioners can use to enhance the feedback concerning the impact of their educational practices and policies" (p.130). Astin views forms of staff-student, professor-student, or counselor-student interaction as an "artistic activity, in that one learns by doing them." (p.129). Feedback is one of the most important parts of developing a technique in an artistic endeavor.

Astin recognizes that there are issues surrounding the utilization of assessment results. To utilize assessment results, the proper audience must be defined to receive results; proper methods of communication must be selected; assessment expertise must be developed within the faculty and staff; and resistance must be negotiated. To enable utilization of results, assessment experts must design presentation of results for the specific audiences. Faculty, student services personnel, administration, and students are the four main audiences in higher education. The presenter must consider what is important in the audience's environment, the student outcomes they are interested in, and the student sample that will be meaningful to them. The assessment results should be presented in differing formats. A summary for audience members that are interested in the large picture. A brief format with some tables and charts for the audience member that desire more detailed information. A quantitative appendix that provides in-depth information for those audience members needing to know specific impacts of changes. Varying formats for results allow interested audience members accessibility to the results at a level they can understand (Astin, 1991). It is when the assessment expert fails to address these aspects of presenting assessment results that the breakdown in the utilization of the results may begin.

The development of expertise that best utilizes assessment results comes from within the faculty and staff. Faculty and staff need to be a significant part of all phases of the assessment process. This would increase the probability that the assessment data addresses institutional issues and that recommendations are meaningful (Astin, 1991). Astin (1991) says that his "long involvement in assessment work and many visits to college and university campuses persuade [sic] that the lack of expertise is a major impediment to the effective use of assessment in American higher education" (p.140). When trying to encourage the use of assessment results Astin finds that audiences often apply defensive tactics. Astin refers to these as "academic games" (p.133).

In a 1976 study of 19 institutions researching how to bring about changes in institutional policy and practice, Astin found that most of the "academic games" consisted of a person's making a verbal statement that would excuse anyone in the audience from acting on the basis of assessment results. Some of the more commonly played games to avoid utilizing assessment results were "rationalization, passing the buck, obfuscation, rhetorical questions, co-optation, recitation, displacement and projection, and the reliability/validity game" (pp. 133-137). Astin states that the best tactic to deal with these games is a diversion, such as suggesting the implications of the findings.

The principle of feedback being used for improvement reaches beyond education. In 1978, Floden and Weiner presented the decisionistic model that comes from the field of governmental policy. This model has origins in the same principle of feedback as does Astin's theory. Floden and Weiner's (1978) model encompasses the idea that programs are enacted with a certain set of goals in mind. These programs are then evaluated on the basis of how well they accomplish stated goals. Later, decision-makers utilize the information from the evaluations to improve program performance.

Another important facet of the evaluation process that Floden and Weiner (1978) emphasize is that it is naive to assume that the process is always clear cut or to assume that it is always the results from the evaluation that cause improvements to take place. In addition to the actual evaluation, there is also the "process" of evaluation that impacts people who are involved . The people involved in this process need to be open to the information received and be committed to change for improvement.

The idea that the process of assessment can be as important as the actual assessment has also been recognized by practitioners. Banta and Fisher (1986) remark about the importance of the process of using the information from outcomes assessment to bring faculty together to work on projects, to stimulate thinking, and to enhance programs and services for students. Banta and Fisher (1986)refer to it as the "dynamic process" (p. 89) of using outcomes assessment that really makes a difference in higher education. Astin (1991) also speaks to the concept of involving faculty. He says that it is entirely possible to gather

> and analyze a great deal of good assessment data without having support from the top administration or even without involving faculty members. However, when it comes to utilization of the results, there is simply no way that one can hope to make a difference with assessment data without the involvement of the faculty and the support of the administration (p.133)

"The immediate purpose of assessment feedback is to generate action that will lead to improvement in the educational program." (Astin, 1991, p.130).

Assessment of general education skills is at the core of the national assessment movement. Tennessee is a leader in the national assessment movement by way of the Performance Funding Program. Tennessee has the longest running assessment for improvement program in the nation. However, as is referenced by Astin (1991), Banta and Fisher (1986), El-Khawas (1990), Floden and Weiner (1978), and Spangehl (1987), in order for assessment of student outcomes in general education to be effective or meaningful toward improvements in general education, there must be utilization of the results from the general education assessment.

CHAPTER THREE

RESEARCH DESIGN

This study determined the effect that the assessment of general education for the Performance Funding Program has had on general education at the public two-year institutions of higher education in Tennessee. The design of the study included both quantitative and qualitative procedures. To reduce biases inherent in data sources, data collection, and the researcher, the design employed triangulation. Data collection methods used in this study included a questionnaire, standardized, open-ended interviews, and document analysis.

The questionnaire provided material for baseline, process, and values data. A cross-sectional sample of the population received the questionnaire. Rapid return of questionnaires provided specific information from the sample to further inform the final interview questions.

The goal of the qualitative interview in this study was the acquisition of data representing each participant's meanings. Standardized, open-ended interview questions allowed the same questions to be used for each participant (Patton, 1990).

The document analysis in this study provided a third form of data about observable activities that have taken place relating to the use of general education assessment results. Documents corroborated responses to questionnaires and interviews. The documents, past Performance Funding reports, college catalogs covering the time frame of the study, general education review plans, fact books, a strategic planning document, an institutional effectiveness document, a memo, a matrices, a program review guide, and a career program review manual also provided historical and contextual dimensions.

Population

The participant population selection was chosen from the higher education faculty and administration at the fourteen public two-year institutions of higher education in Tennessee. Those identified were individuals whose positions required them to have specific knowledge about general education assessment or the Performance Funding Program. The sample was chosen by criterion-based selection which requires that the researcher establish a list of attributes that the participants in the study must have (Patton, 1990). These descriptors set boundaries between personnel to be considered and personnel to be excluded (LeCompte and Preissle, 1993).

At each institution, the participants identified for this study were the chief academic officer, the performance funding coordinator, and three faculty members with knowledge of general education assessment . The list of chief academic officers and performance funding coordinators was obtained through the Office of Academic Affairs at the TBR and through the THEC. Faculty were selected by a modified networking method of sampling. In the network method of sampling the successive participant (e.g. faculty) is named by a previously selected member of the group (e.g. chief academic officer) (LeCompte and Preissle, 1993). To reduce bias in the sample provided, the researcher requested that each chief academic officer provide a list of no fewer than five faculty members on his or her campus that met the criteria for selection. From these lists the researcher randomly selected three faculty participants from each campus. The total sample included 14 chief academic officers, 14 performance funding coordinators, and 42 faculty members. Due to the same individual's being both the chief academic officer and the performance funding coordinator at two institutions, the total sample size was sixty-eight.

Instrumentation

The questionnaire contained nine closed-ended items that specifically targeted the three research questions. It also contained eleven items to be answered on a five point Likert scale. These Likert scale items were targeted toward the specific impact of the general education assessment of areas covered in the research questions. Table 3-1 provides a comparison of the relationship of questionnaire items to research questions. The questionnaire packet sent to the participants included, in addition to the questionnaire, a letter procured from the TBR in support of candid responses to the questionnaire a cover letter from the researcher, and two consent forms. The letter from the researcher addressed the research purpose, the importance of the questionnaire, and the issue of confidentiality. A sample of the entire packet can been seen in Appendix A.

To confirm that the material included in the questionnaire had content validity and would yield the desired information, the questionnaire was pilot tested at four four-year institutions within the TBR before being mailed to the participant group. This pilot group included ten participants who were chief academic officers, liberal arts deans, and institutional researchers. Selection of the pilot group was based upon purposive convenience sampling (Patton, 1990). The pilot study utilized four-year institution staff rather than two-year institution staff since the latter were to participate in the actual study.

The pilot participants' results were used to clarify the item content and format of the initial questionnaire. Due to the results of the pilot questionnaire, the lay-out and/or wording of four questions was modified, two questions were moved into the Likert scale area of the questionnaire, and the lay-out of the root Likert scale question was modified. However, the overall information gathered from the questionnaire remained the same.

Questions used in the standardized, open-ended interviews were improved as a result of the data gathered from the questionnaires. Interview questions consisted of nine questions that followed Spradley's typology and four questions that were follow-up questions from the questionnaire. Spradley's typology (1979) has three categories of interview questions: descriptive, structural, and contrast. The category of descriptive questions elicited the participant's depiction of general education assessment on his or her campus. Structural questions targeted the constructs which participants used to describe general education assessment. Contrast questions elicited description of the relationships that participants perceived among the different constructs described (Spradley, 1979). An interview protocol can be viewed in Appendix B. The relationship of interview questions to the research questions is shown in Table 3-1.

Table 3-1. Comparison of research questions with questionnaire, documents, and interview questions

Research Question	Questionnaire	Document	Interview *
Question #1: Has the assessment of general education resulted in changes in the curriculum in general education?	Questions #4,#5, #6,#8,#10,#11, #20 and open question	College catalog Performance Funding Reports	Question: #1(D), #2(S), #3(D), #4(D), #5(D), #7(C), #10(D)
Question #2: Has the assessment of general education resulted in changes in the instructional delivery strategies and methods used in general education?	Questions #4,#8, #12,#13,#17, #20 and open question	Performance Funding Reports	Question: #1(D), #2(S), #3(D), #6(D), #7(C,) #10(D)
Question #3 Has the assessment of general education resulted in changes in student learning experiences and activities?	Questions #3,#4, #7,#9,#14,#15, #16,#18,#19,#20 and open question	Performance Funding Reports	Question: #1(D), #2(S), #3(D), #4(D), #8(C), #9(C), #10(D), #11(C), #12(S), #13(C)

* From Spradley's typology, (D) = Descriptive (S) = Structural (C) = Contrast

Data Collection Procedures

Questionnaire

The questionnaire was mailed along with a supporting letter from the TBR and the cover letter from the author to the participants on each campus. Additionally, each participant received two consent forms: one to sign and return and another to keep for his or her records. The envelope also contained two plain white, stamped envelopes with the researcher's name and address stamped in the return and addressee area. One envelope was for returning the consent form. One envelope was for returning the questionnaire.

The two envelopes allowed for confidentiality of responses to the questionnaire and provided a means of obtaining the participant's informed consent. Two weeks after the original mailing, a reminder post card was sent to all participants who had not yet returned consent forms. One month after the original mailing, phone calls were made to the remainder of the participants who had not responded to either mailing. Returned questionnaires were opened by a research assistant so that the author did not see the postmark. Return envelopes were destroyed. Consent forms were hand delivered weekly to the Leadership Studies Unit Office at the University of Tennessee, Knoxville, for storage during the research project.

Documents

An attempt was made to obtain from the THEC the past Performance Funding reports covering every five-year cycle for each of the public two-year institutions of higher education in Tennessee. The cycles began with the 1982-83 academic year. It was discovered that the THEC does not retain copies of the actual reports from past years for longer than two years. The only information retained by the THEC longer than two years is the scores and the dollar amounts received by the institutions. The hard copies of reports are sent to storage. The reports for cycle one, 1982-87, and cycle two, 1987-1992, which had been sent to storage, had been destroyed three months prior to the researcher's inquiry. Since the THEC had destroyed old hard copies of the past reports, the researcher had to seek past reports from the individual campuses' records.

One institution had records for 1982-1983. Another college had a report for 1983-84. There were a total of two reports for cycle one (1982-1987). Six institutions were able to provide reports for 1987, the first year of cycle two. Two other institutions provided reports from 1988 and 1989. One institution provided a report from 1991. A total of nine reports were provided for cycle two (1987-1992). Thirteen institutions provided reports from 1992, the first year of cycle three (1992-97.) One institution did not provide any past reports. With the difficulty in locating the desired documents, the researcher decided to use all documents that the THEC could provide from cycle three because from that cycle all fourteen institutions had reports from 1993-94, 1994-95, and the 1995-96 mid-year report. The total number of performance funding documents reviewed for cycle three was 55. The contents were analyzed for specific mention of any projects and/or activities relating to the use of general education assessment results.

College catalogs from each public two-year institution of higher education in Tennessee were obtained from the TBR and the individual campuses. These catalogs covered the time period from the 1982-83 academic year through the most recent catalog. Since, at the time of collection, several institutions had not printed the 1996-97 catalogs, these were sent by the institutions to the researcher upon printing. A total of four catalogs from each institution was examined. The catalogs' statements about general education and general education requirements were analyzed for changes that have taken place during the time frame of the study.

Analysis included other documents in addition to the 66 Performance Funding reports and the 56 college catalogs. The other documents were three general education plans, one fact book, one strategic planning document, one institutional effectiveness document, one memorandum that included the college's philosophy of general education, one matrix in which general education outcomes are measured, one career program review manual, and one academic program review guide from seven different institutions. A total of 132 documents were analyzed for content.

Interviews

Participant interviews were conducted using a standard format. First, each participant who had returned a form consenting to an interview received a telephone call to establish an interview time. The phone call was followed by a confirmation letter with an interview protocol enclosed. In the case of the interview time's being very soon after the phone call, a fax of the interview protocol was sent to the participant instead of a letter's being sent.

Thirty-four participants were interviewed. At least two participants from each institution except three were interviewed. At one of the institutions where only one participant was interviewed, that participant had met with the academic dean's council prior to the interview so that the interview would represent a composite campus response. At the other institutions, two people participated in the survey, but only one would grant an interview. All of the interviews were conducted in person. Thirty interviews were taped. Four participants disallowed taping of the interview. Notes were taken on contact summary sheets during all interviews. A contact summary sheet can be viewed in Appendix C.

Interviews consisted of thirteen standardized, open-ended questions. Nine of the questions had been established through prior research and had been refined by responses to the questionnaire. Four of the questions were structured as open-ended follow-up questions to the questionnaire responses. All interviewees were asked all thirteen questions. All interviews took place during a three week period. Interview tapes and notes were transcribed and analyzed. The researcher erased all interview tapes after the research project was complete.

Methods of Analysis

The following are the research questions originally proposed and engaged for this analysis.

(1) Has the assessment of general education resulted in changes in the curriculum in general education at two-year institutions of higher education in Tennessee?

(2) Has the assessment of general education resulted in changes in the instructional delivery methods and strategies used in general education at two-year institutions of higher education in Tennessee?

(3) Has the assessment of general education resulted in changes in student learning experiences and activities at two-year institutions of higher education in Tennessee?

As stated in Creswell (1994), Marshall & Rossman (1989), and LeCompte & Preissle (1993), qualitative data analysis is simultaneous with the process of data collection. The process of qualitative analysis is based on data reduction and data interpretation (LeCompte & Preissle, 1993). This concept is referred to as "de-contextualization" and "re-contextualization" (Tesch, 1990). Three data collection approaches — a questionnaire, an interview, and document analysis —provided for triangulation. Triangulation allows for the combination of methodologies to be used in studying the same phenomenon (Denzin, 1978). The analysis of each of these data collection methods is complimentary of the others. In this particular study, sequential triangulation whereby the researcher uses the results of the first phase of the research project — the questionnaire— to plan the next phase of the research project — the participant interviews (Creswell, 1994).

Questionnaire

The responses to the questionnaire began to answer the research question in terms of "what" is happening with general education assessment in the public two-year institutions of higher education in Tennessee. Descriptive statistics provide a way of reducing large amounts of data to summaries for easier understanding and interpretation (Babbie, 1990). Univariate, descriptive, statistical analysis was performed on the data collected from the questionnaire.

Questionnaires were tallied by hand on a summary questionnaire as they arrived daily in the mail at the researcher's residence. After all responses were received, further analysis of the results began. A frequency distribution was calculated for each item on the questionnaire. The percentage of participants responding both positively and negatively to items one and two, was determined. The mean and combined number of years of experience in working with general education assessment and the Performance Funding Program was calculated for items one and two. The participants' types of involvement in general education assessment was tallied for a frequency distribution of categories. Items one and two gave the perspective from which the questionnaire was answered. Frequency distributions were determined for responses to items three through nine. A mode was also calculated to determine the most frequently given response. Likert scale items ten through twenty were each given an overall score as well as a mean score (Fink, 1985). The limited responses to the open-ended question at the end of the survey were analyzed for content by the researcher but yielded no significant information pertaining to the research questions.

The questionnaire analysis provided the information necessary to have a baseline description of the following: (1) how general education goals are stated, (2) whether or not general education assessment is being used to effect general education, (3) what the outcomes are that public two-year institutions are seeking from general education, (4) how general education is being assessed at public two-year institutions, and (5) how general education assessment results are being used at public two-year institutions.

Documents

Content analysis has the advantage of providing a systematic examination of material. By using a systematic content analysis, the researcher can help guard against biases that may be built into the examination (Babbie, 1990). A document summary form that can be viewed as Appendix D was completed for each document that was obtained. The document summary form included the name of the document, pages used, significance, research question it related to, and a summary of information gleaned from it (Miles & Huberman, 1984). Prior to a document's being analyzed, a short list of general codes, using the accounting scheme developed by Bogdan and Biklen (1982), along with the research questions, was developed. The accounting scheme allowed the researcher to code data according to setting/context, definition of situation, and ways of thinking about people and objects, process, activities, or strategies. The code list provided for preliminary coding during data collection. The coding consisted of using the numbers 1, 2, and 3 to denote the research question and letters to denote the accounting scheme developed by Bogden and Biklen. The letters used for coding are located in the top right hand corner of the document summary form that is seen in Appendix D

The contents of the catalogs were analyzed. To analyze general education statements from catalogs, the "find" option on Microsoft Word 6.0. was used. General education skills to search for were based on the skills stated by Boyer and Ewell (1988), SACS (1995), TBR (1987), Astin (1991), Ewell (1987), Johnson (1982), Pascarella and Terenzini (1991), Gaff (1983), and other terms that appeared in the course of the on-campus interviews. This analysis was done to determine (1) if there has been a change in focus of the general education program, (2) whether or not there have been any changes in emphasis of skills in general education, and (3) if there is mention of assessment in the general education statement. General education curriculum requirements were content-analyzed . This analysis was done to determine (1) if the number of hours of general education has changed during the time frame of the study, and (2) if the number of hours related to a specific skill has changed. Specific skill areas were those determined by the TBR in 1987.

Past Performance Funding reports were content-analyzed. Using the 1982 Bogdan and Biklen coding scheme developed along with the coding for the research questions, three portions of the reports were analyzed: (1) general education, (2) mission specific objectives, and (3) improvement actions. The data contained in these sections of the reports were analyzed to determine if they provided information on setting\context, definition of situation, ways of thinking, process, activities, or strategies. The data were then also cross referenced with activities, processes or ways of thinking that were expressed in participant interviews to determine categories and patterns of responses and documentation corroboration.

The mission specific objectives and improvement actions were content-analyzed using the "find" option of Microsoft Word 6.0. Items to "find" were identified by the Bogdan and Biklen (1982) coding scheme from the contact summary sheets. This analysis was undertaken to determine (1) what specific statements institutions have made about goals for general education in the time frame of the study, (2) what specific activities have been undertaken as a result of the use of general education assessment results, and (3) whether the statements were related to curriculum changes, course content changes, strategies for instruction, or student learning experiences. Other documents — three general education plans, one fact book, one strategic planning document, one institutional effectiveness document, one memorandum that included the colleges philosophy of general education, one matrix of general education outcomes measurement , one career program review manual, and one academic program review guide — were analyzed manually using the document summary form and the Bogdan and Biklen (1982) coding methods along with the research question coding. The other documents were mainly useful to corroborate information found in past performance funding reports and catalogs. They were not useful in providing new information.

Interviews

After each interview, a contact summary sheet containing sketches of answers to interview questions was filed. Following the format established by Miles and Huberman, 1984, these contact summary sheets included answers to the following questions. First, "What are the main themes, issues, problems and questions perceived during the interview?" Second, "On what research questions did the interview bear most centrally?" Third, "What hypothesis, speculations, or guesses about field situations were suggested by the interviewee?" Reflective remarks and questions that were raised were also included. Data analysis of the standardized, open-ended interview questions was simultaneous with data collection through the use of fieldnotes that were expanded after each day's interviews. Data analysis during data collection allowed the researcher to think about existing data and develop initial categories to use in further examination of both the new and existing data.

The taped, standardized, open-ended interviews were transcribed by a secretary who had signed a confidentiality form that stated that she would not reveal the information that she heard while transcribing the interview tapes. She followed a format compatible with the Ethnograph 4.0 software program. Field notes were typed by the researcher in the same manner as the interview tapes. The researcher's field notes from the interviews were constantly reviewed and expanded after each interview. The analysis of interviews was aided by the Ethnograph, version 4.0, computer software program. The Ethnograph requires that the first coding of data be done on paper. The coding scheme of Bogdan and Biklen, 1982, and research questions were done manually, then entered into the

Ethnograph 4.0 program. Coded segments were grouped and re-grouped for analysis. Categories, patterns and themes were developed from the interview text.

Important approaches to analyzing qualitative data are analytic induction, constant comparison, and enumeration. In this study the researcher used analytical induction (LeCompte & Preissle, 1993) as the information was scanned. This procedure located reoccurring data that would form categories. Fieldnotes, contact summary sheets from interviews, and interview transcripts were read and re-read to determine relationships among categories. Discrepant cases were used to expand or restrict original categories and patterns. As the materials containing the data were analyzed, constant comparison, as developed by Glaser and Strauss (1967), was used to combine category coding with all new coded data. Each new piece of data was compared with categories and patterns that had already emerged. New information provided ideas for the expansion of categories originally formed by using analytic induction. From using constant comparison, initial hypothesis about the meanings of categories and patterns were developed. Enumeration, as described in LeCompte & Preissle (1993), is a data analysis strategy that allows the researcher to use frequency counts to determine the identification of patterns and categories. This strategy was used to provide supportive evidence for the categories and patterns that emerged during the study. By using the three analytic procedures described, the researcher developed categories and compared new data to these categories until final patterns and themes began to emerge.

To enhance the written text, data displays as described by Miles and Huberman (1984) for cross site analysis were used. The data displays that were employed to examine the data included the ordered summary tables, site ordered descriptive matrix, and time ordered meta-matrix. Using an ordered summary table is one of the first steps to be taken in moving from single site analysis to cross site analysis. An ordered summary table allows the researcher to determine similar characteristics shared by sites. In this case, the similar characteristics were the types of skills mentioned in the general education statements. Data from the college catalogs' general education statements were analyzed using ordered summary tables. The use of an ordered summary table allowed the researcher to examine the number of times certain general education skills were mentioned throughout the time frame of the study in general education statements. A site ordered descriptive matrix is used when the researcher wants to see the differences among sites according to a certain variable. In this case, the differences were based on the variable of general education skills included in the curricula. The site ordered descriptive matrix was used to examine specific general education skills as they were included in the general education curriculum at each institution during the time frame of the study. A time ordered meta-matrix allows the researcher to examine events that have occurred over a period of time based upon certain indicators. The basic principal used is chronology. The data from the past performance funding reports was analyzed using time ordered meta matrices. By using time ordered meta matrices, the researcher was able to see the change that had taken place over time in the activities that related to each research question area— curriculum, instructional delivery methods and strategies, and student learning experiences and activities. These data displays enhanced the analysis of the data for the researcher by arranging data into more understandable formats. The data displays also allowed the researcher to examine the data in different ways, see patterns, and verify conclusions.

From the completed analysis, categories, patterns and themes emerged that showed the effect that general education assessment has had on general education at public two-year institutions of higher education in Tennessee. To bring more validity to the conclusions drawn from this study, conclusions drawn from one data source were checked against conclusions from other data sources. The checking was done by using triangulation.

CHAPTER FOUR

FINDINGS

Introduction

The findings from this research reveal the influence which the general education assessment, undertaken for the Performance Funding Program, has had on public two-year institutions of higher education in Tennessee from 1982 through May of 1996.
The data used to determine these influences were taken from a questionnaire sent to chief academic officers (CAO's); performance funding coordinators; three randomly selected faculty who are knowledgeable, through professional responsibilities, about general education from each institution; and the analysis of documents including catalogs, performance funding reports, and other reports provided by individual campuses; and participant interviews. The data resources are used to report information found regarding each research question as addressed by the questionnaire, documents, and interviews. A composite response summarizing the information gathered from all data sources for each research question is provided at the end of each research question section. Where themes and/or categories are referred to in interview questions, quotations are cited from the participants as examples. Each participant is randomly assigned a letter of the alphabet by which his or her quotations from interviews are referenced. These letters in no way relate to the individual participant's interview order or the institution he or she represents. The presentation of information gathered from qualitative data resources is followed by a summary of other significant findings. Tables are used to present details of the findings.

Definitions

In conducting this research, it was determined that the term *general education assessment* is used by the participating institutions in a broader sense than the researcher had originally thought. The term *general education assessment* encompasses several sources of data used by the participating institutions. These components include a general education assessment instrument's results, the Enrolled Student Survey, and the Alumni Survey. The Alumni and Student Surveys are given in alternating years. The two surveys each contain questions that directly address the students' general education experience. There are two institutions that also use focus group interviews with students. In order that the results may be presented clearly and concisely, all components which an institution considers to be components of a general education assessment are included.

Another term that needs to be clarified before continuing the presentation of the findings of this research is the term *curriculum*. The term *curriculum* includes changes made in the course content as well as those changes that included course additions and deletions to a general education curriculum.

Perspective

In interpreting research results, it is important to know the perspective of the participants from whom the data were collected. Questions one and two on the questionnaire provide some of this information. Of the respondents, 45 of the 50 have been or are involved with general education assessment. Five respondents indicated not being involved with general education. Of the 45 respondents who have been or are involved with general education, 9 are CAO's, 24 are faculty members, and 12 are performance funding coordinators. From question two, 37 of the 50 respondents have been or are involved with the Performance Funding Program. Eight participants reported not having experience with the Performance Funding Program but do have experience with general education assessment. Of the 37 that have experience with the Performance Funding Program, 5 are CAO's, 18 are faculty, and 12 are performance funding coordinators. Two participants who said that they had experience with the Performance Funding Program did not list their positions. The composition of the participant group provides a balanced perspective from both the administrative and faculty viewpoint. The participant group has a total of 509.8 combined years and an average of 11.6 years of experience with general education assessment. The participant group has a combined total of 270.8 years and an average of 7.5 years of experience with Performance Funding. The five participants who did not have experience in either area did not complete the questionnaire beyond question two and are not reported as responses on the remainder of the questions. There were also some respondents that did not answer all questions on their questionnaire. These responses are reported as *"don't know"*

Research Question One

Has the assessment of general education resulted in changes in the curriculum in general education?

Questionnaire

Responses to questions four, five, six, eight, ten, eleven, twenty and the open question on the questionnaire relate to changes in the curriculum. Responses will be presented in narrative format. The responses to item four required a follow-up interview question. The responses to that interview question will be presented after the response to item four for clarity.

In response to questionnaire item four, 64% of the respondents said that the general education assessment process at their institution *was appropriate*. However, 13% of the 64% qualified their responses with exceptions. Another 35% said they did not believe that *the current general education assessment was appropriate to determine if the institution is achieving the goals that is has stated for general education*. Participant responses to the probe, "If, no, please explain what you think should be added or deleted," centered around three issues. First is the need for multiple indicators. Two typical responses were, "There is a need for multiple measures and forms of assessment," and "We only use one external assessment, ACT COMP. We need more types." Some expressed a dissatisfaction with the instrument used. This was reflected in such statements as, "The test does not reflect the curriculum," and "The ACT COMP has little similarity to tasks required of students in their courses, " and "College Base is not relevant to general education at two-year colleges." Others expressed the need to know more about their own assessment process. This was found in such statements as, "We are currently conducting a program review for general education [sic] and we expect to make some changes in the assessment process as a result," and "We are currently revising the general education evaluation process." A follow-up interview question supported these responses.

Interview question 10 asked, "In your opinion what would be an appropriate assessment of general education at your institution?" A common theme found in the participants' responses is that they are not satisfied with the general education assessment being done. One participant expressed the dissatisfaction theme by saying,

- "I don't think any of us are satisfied. Let me give you a point of reference. [T]he chief academic officer[s]meet at least quarterly. Inevitably, one of the topics of our discussion is . . . general education assessment or things related to it. So, I don't think any of us are satisfied there is a good way to do this." (FF)

Within the theme of dissatisfaction, there are two categories of answers that emerged. The first category, the need for multiple indicators, is referenced in the following participant remarks.

- " No one thing will ever do." (Y)
- " . . . [T]alking about the narrow sense, ACT COMP does the assessment. It only gives us some indicators." (U)
- "I think the kind of review we do at the ...department level needs to be part of it. I think just giving the College Base is not enough."(T)

- "Sometimes the instrument is not geared to the situation. I think that the best assessment[s] are those brought out of intensive self-study with broader goals as a guideline." (H)
- " I think that an instrument is probably needed, but we need to be careful to realize that an instrument cannot assess how many times a student uses their [sic] e-mail account [or] what kind of changes there are in [his ability]. . . to communicate ideas."(L)
- "More than one national test should be used."(J)

The other category is specific examples of what should be used, with an emphasis on allowing more campus control over how the institutions assess performance in general education. Participants also responded as follows to interview question 10.

- "It would include more . . . classroom assessment. There would be a standardized plan to follow — portfolios and exit interviews."(DD)
- "[I]t would have to be faculty design[ed] with input from each department. I think it would have an element of writing in it, not only to determine the effectiveness of writing technique, but also as an argumentative device to explain . . . areas that are clearly gray as opposed to black and white." (CC)
- "Ideally, it would be one of those wonderful things like a portfolio interview with a real kind of support team there." (R)
- "We need more flexibility in general ed. assessment. I see no reason to give the ACT COMP every year. What I would like to see is for us

to have an alternative where . . . every other year, we could examine some other dimension in general education." (H)

- "[It] [d]epend[s] on the institution and its mission.[sic] Student performance is really the best indicator. [G]rades have been used for centuries. [S]tudents have been transferring for eons. Why can't we focus on these tried and true indicators?"(A)

Responses to questionnaire item five reveal the types of outcomes that two-year institutions are seeking from general education. Eighty-eight percent of the respondents said the two most commonly stated student outcome skills that two-year institutions are assessing in general education are *computational* and *problem solving skills*. Skills institutions are assessing in addition to computational and problem solving are followed in descending order by *reading skills*, 88%; *writing skills*, 84%; *critical thinking skills*, 84%; *interpersonal skills*, 60%; and *values development*, 56%; Of the respondents, 2% answered *don't know*. Other skills that participants listed as being assessed are computer literacy, technology awareness, cultural awareness, and a knowledge of world events.

Questionnaire item six asked the participants the types of student data that the institutions had gained from the process of general education assessment. Seventy-one percent of the participants said institutions have gained the most data about students' knowledge of *computation*. The responses for data gathered followed in descending order with *knowledge in reading*, 66%; *knowledge in writing*, 64%; *skills in problem solving*, 62%; *skills in critical thinking*, 60%; *the match between our institution general education goals and the students' achievements toward those goals*, 51%; *values about the world* *around them*, 42%; *skills in interpersonal communication*, 37%; and 2% responded *don't know*.

Responses to questionnaire item eight answer the question of how general education is being assessed at public two-year institutions of higher education. All respondents said they use some form of standardized assessment. Information gathered through the interview process narrowed the type of standardized assessment being used to the CBASE or the ACT COMP. Fifty-one percent of the respondents use both *employer feedback* and *feedback from four-year institutions*. Other types of assessment used in descending order are 22% are using *qualitative assessments (focus groups, interviews, and journals)*, 20% are using *performance assessments (projects, recitals, publication, presentation, practical experiences)*, 17% are using *locally developed instruments*, and 4% are using *student portfolios*.

Answers to questionnaire items ten, eleven, and twenty were responded to on a Likert Scale with number 1 being "no impact", number 2 being "little impact", number 3 being "some impact", number 4 being "significant impact", and number 5 being "major impact". Response levels to Likert Scale questions are presented in Table 4-1.

The Likert scale responses reflect the overall tone of the responses regarding impact. The area in which the strongest perception of impact has occurred is *curriculum*. The next highest level is *course content*.

The responses to the open question at the end of the questionnaire did not provide information pertinent to the influence of general education assessment on curriculum.

Table 4-1 Responses to Likert Scale Questionnaire Items 10, 11, and 20.

Item	Question	Response
10	How much impact has the assessment of general education had on the general education curriculum design?	3.11
11	How much of an impact has the assessment of general education had on general education course content?	3.06
20	How much of an impact has the assessment of general education had on the overall quality of general education?	2.84

Interview Questions

Each of the 34 interview participants was asked thirteen interview questions. Each theme or category derived from the data will be supported by quotations from the participants. Responses to interview questions one, two, three, four, five, seven, and ten relate to changes in the curriculum. Interview question ten was a follow-up question to questionnaire item four and is described above. The other five interview question responses will be presented below.

A theme that emerged from the responses to interview question one, asking the participants to describe general education assessment at their institutions, was that the assessment is multifaceted. Types of assessments that are used at the two-year institutions of higher education include indicators used for the Performance Funding Project, the ACT COMP or the CBASE, the Enrolled Student Survey and the Alumni Survey, and other indicators such as other student surveys, focus groups of graduates, departmental assessments, evaluations of courses, grade distributions, program reviews, articulation agreements with four-year institutions, feedback from four-year institutions, feedback from employers, and individual classroom assessments on assignments. Examples of supporting participant responses are as follows.

- "...they do the personal objectives,...evaluated the faculty,...the academic program review process,...the performance funding review...three or four of those areas relate to general education...follow-up survey with business and industry." [sic] We do classroom assessment. We use the CBASE." (HH)
- "The ACT COMP is required for all graduates. Every academic program does its own review. It's very comprehensive...performance in courses, retention, faculty credentials, materials used, and equipment used." (AA)
- "It involves different components of the institution. ...surveying students each term, alumni survey, strategic planning, and evaluation that ties to each department and departmental objectives."[sic](Z)
- "We use the ACT COMP. ...questionnaires with either enrolled students or alumni on alternating years. We also use focus groups."(V)
- "We do the ACT COMP. ...relate specific questions on our surveys and specific items within the COMP instrument to our goals so we can

try to focus a little better,...utilize the Alumni Survey, ACT Outcome Survey,...the CCSEQ,...and focus groups." [sic](H)

- "...use the ACT COMP.[sic] The more routine things we do in addition...include: spreadsheets for course evaluations in the gen. ed. core, transfer equivalency tables and articulation agreements, and syllabi for courses in core."(A)

Interview question one also revealed the number of institutions using the ACT COMP, which is 8, and the number using the CBASE, which is 6.

Interview question one had two probes. In probe one, participants were asked to name one positive event or experience that has occurred as a result of general education assessment. With the exception of four participants, who were from the institutions where there was perceived to be no connection between general education assessment and student learning, every participant was able to think of at least one positive experience from using general education assessment. Two categories emerged from these stated positive experiences. Participants' responses describe the first category, changes in curriculum and course content.

- "Based on the results from the COMP there were changes made in the social sciences at the institution." (FF)
- "We decided to change the course, completely revamp it, and its [sic] now called critical thinking." (CC)
- "We learned...that our students weren't doing as well on graphs. So, [*sic*] we started several years ago making a concerted effort to use more

graphs. We've made concerted efforts to get writing done in other areas than just English." (V)

- "We added a communications course. It was needed. It is very useful. It's designed as personal communications as well as public speaking." [sic] (O)

The second category, connecting assessment to campus planning, emerged from participant responses such as these.

- "It gives us a vehicle to constantly review what we are doing."(BB)
- "Here's the areas we are weak in...and write objectives ...to address those." [sic] (FF)
- "...one of the things that has come out of this...we have narrowed our laundry list of goals for general education.[sic] We're trying to decide what we are doing with students." (U)
- "...getting down to the course objectives. We have coherence with the programs. We have course revision." (H)

The second probe of interview question one asked the participants to give one negative experience that occurred as a result of general education assessment. Negative comments centered around two categories. Participants described the first category, a lack of student motivation to do well on the assessment, in this way.

- "...trouble with the motivation of students." [sic] (CC)
- "They really think they are being tested over stuff they have not had of things they have not done." [sic] (Y)

- "I wish we could come up with the magic formula for getting maximum student consideration and enthusiasm and cooperation for taking the test." (G)
- "...is an enormous amount of time is taken up and money getting the students notified.[sic] They won't respond." (CC)

Participants describe the second category, difficulty tying the results to the curriculum, with these responses.

- "...with both the old instrument and the new one of actually getting a handle on the tying those results back to the curriculum." [sic] (FF)
- "It is difficult to take the results from the ACT COMP and say how does this apply to mathematics, or your general ed. components of English, or public speaking or some other area." [sic] (EE)
- "It's just impossible to tie to the curriculum." (BB)
- "If you don't score well in the area, it is very difficult to try to figure out how to fix it. It's very difficult to even determine that you want to fix it." (D)

Interview question two asked participants about how the data from general education assessments are analyzed. A theme that emerged from answers to interview question two was the process for disseminating information about the general education results. The process described the flow of communication on the campuses. This flow can best be described as a loop. The flow of information may begin and end at differing places depending upon the institution. All institutions do not complete the loop. Participants gave the following responses.

- "He [the performance funding coordinator] has distributed the summer information to all of the division deans and department chairs and other interested parties, with the instruction that they look at these results and begin thinking about implications. That same information...along with some more analysis will be presented to the faculty as a whole at our fall in-service meeting. ...we asked them at the beginning of the year to include in their departmental objectives...items addressing outcomes from not only general education assessment but all the other assessments we do, the ...enrolled student, the surveys we do with graduates. [sic] [He] selects from those as the come in, [sic] some of those get put in the institutional strategic plan, some of them get put in standard nine...where we've got those specific objectives. ...follow through on those throughout the year to see what progress is being made on them, and then the report at the end of the year." [sic] (FF)
- "The Dean of Liberal Arts looks at the results and determines what corrective measure should be taken. We're going to come up with a plan to involve faculty more in the knowledge of the results. We have been remiss in that. ...attempts to put into effect corrective measure that she determines...working through the faculty." [sic] (CC)

- "We review them in the academic council, which includes all department heads, as part of the planning process. Each department works on improving general education outcomes and documenting improvement in priority areas for their [sic] programs." (R)
- "We ...take it to pieces here. ...send this off to the divisions chairs, the president's council, and say these are the things to be concerned about. sic] [It also goes to] the Vice-President for Academic Affairs, Vice-President for Student Affairs, Vice-President for Finance, Director of Development, the Director of Personnel, Chair of the Staff Council, and Chair of the Faculty Council. They go through it, look at it, and make decisions on what we should pursue further." (D)
- "That information is disseminated every fall at in-service. It is further analyzed as faculty begin to yield it in terms of developing strategies." (T)
- "I don't know of any that is done" (X)
- "It's purely superficial, I think they may look at it and shake their head[s]. But, in terms of actually carrying through, I don't think there's anything at all done."(W)
- "The only thing I see are some figures that come along ...once in a while. Except if we do poorly on performance funding.[sic] We're all assembled and the deans....things are said to be deficient and here's why." [sic] (M)

Interview question three inquired as to how the results from general education assessment were used on campus. From the institutions that are using the results, the theme that emerged to describe the use of results was that changes should be made at the department level. The replies that the participants gave were broad descriptions that continued the process presented in interview question two. The same institutions that are not following a process to analyze results are also not using the results. Participants made the following remarks.

- "The departments list their objectives and get back to their [sic] faculty about what can [sic] we do to fix this deficiency, and then they supposedly change the curriculum to address those." (HH)
- "Adjustments are made within the departments. ...reviewed the curriculum and decided to restructure the curriculum based on competencies. [sic] There was a full faculty effort." (DD)
- "When faculty in this division project their objectives, then they've had this information, frequently they are responding to specific things that we have come up with through various surveys or assessment." [sic] (V)
- "Summary reports are sent to the departments that determine what areas they will try to improve." [sic] (D)
- "It's not really that used [sic] but I anticipate that its [sic]really going to be used." (Y)
- "I know of absolutely nothing." (W)

Responses to interview question four described the influence that the general education assessment has had on the curriculum. The participants also incorporated changes in course content into this question. Therefore, some of the responses to question four and the following interview question, five, have overlapping information. The researcher has separated the information for clarity.

There have been few actual changes in general education curriculum through addition or deletion of courses. The changes have focused more on the area of course content which will be addressed through responses to question five. Changes that have been made in the curriculum are represented through the following responses.

- "...in the required general education classes has a six hour requirement in social sciences. [sic] The scores were very very weak in the social sciences. That was the institution's decision to do that." (FF)
- "We have been looking at our humanities area and trying to decide if workplace ethics...is a proper general education course. We feel like it certainly is for business majors." (EE)
- "We have increased the number of hours required in social sciences." (DD)
- "We have changed our IDS course from "Technology Across the Humanities" to "Critical Thinking"." (CC)
- "It's one of the reasons we have ...a social sciences requirement. That [sic] came from the results of the general education requirement." (T)
- "...computer literacy. We've developed, as a result of all this.... [sic] A computer literacy course has been piloted this last year. So, now

they're calling it a real course in the fall. Freshman Year Experience is based on the competencies of the general education outcomes." (R)

Responses to interview question five describe the impact that general education assessment has had on course content. While there have been content changes in several different areas as referenced by the participants, most changes have taken place by including more computer and technology emphasis in courses, and by concentrating more on the communication skills of speaking and writing in courses. These changes are exemplified by the following participant responses.

- "A good example, [sic]is our English department. They started requiring certain assignments done [sic] through certain computer programs. Now, they are actually doing some teaching through those." (AA)
- " We have asked people to do more writing. For example, in this history area, we asked, not just the full-time, but the adjunct faculty to be sure that the students do some writing on tests. I know one professor does a replay of the constitutional convention and students wind up being delegates from Delaware or Massachusetts, and have to present the case from that particular state." (V)
- "Communication through the CBASE for reading, some indication of writing ability and for listening and speaking [sic]. There is a journal, a standardized journal requirement with speech courses which addresses those ... competencies. The faculty review the journals in terms of students' experiences and perceptions and modify accordingly." (R)

- "...most recent [sic] in the computer area. We found that students were having a hard time of accomplishing the goals, the way the course was designed. So, we worked with the faculty to redesign some things within that course." (N)
- "...introduced more writing and critical thinking and problem solving into all courses, especially core requirements. Many courses are now using computers through open computer labs and assignments." (A)

Responses to interview question seven describe the relationship that the participants see between general education assessment and the decisions that are made concerning general education. The responses to this question are varied. As referenced by the following remarks, 15 of the 34 interview participants see a direct relationship.

- " I would point back to what I said was our process of disseminating the information to the people who are the decision makers and requiring each department to consider it and include it in their objectives for the year. I think that's the way we are tying decisions relating to general education back to the assessment." (FF)
- "I think it does affect on, [sic] our instructional improvement activities. I do think that it has prompted us to make some decisions in common teaching strategies. I guess the third thing is we use assessment as sort of a monitor when we are making decisions about changes in general education." (T)

- "We do look at it in the curriculum development committee. In terms of justification for that, [sic] assessment results are used along with other things." (R)
- "I have been here six years. We do not and have not made any decisions concerning general education without having some type of assessment results to back us up or give us a reason to make changes." (G)

Also eight of the 34 interview participants, understand the concept theoretically and believe that the linkage will be seen after the general education review. The following responses support this point of view.

- "Since we are just about to complete our first assessment of general ed. as a program, . . . I can't tell you what we have done, but I will tell you what we will do. The report will come to me and I see [sic] the list of recommendations and we will incorporate some strategies in addressing these recommendations in the strategic plan." (AA)
- "Only in the sense that ah, it probably had, was a driving force to the revision that we're going through now." [sic] (W)
- "As of now I don't. May see it some form next year's review." [sic] (N)

Ten participants do not see a linkage. Their responses supporting this statement follow.

- "Not really." (HH)
- "I don't think so. I sit through meetings all the time about revising curricula, adding courses. [sic] No one's ever said, based on assessment." [sic] (GG)

- "It's hard to see the linkage" (AA)
- "There aren't any at the present time." (X)

One participant did not respond to the question.

The final interview question that addresses the changes that have taken place in the curriculum is number ten. The responses to this interview question have already been presented as a follow-up to item four on the questionnaire.

Documents

The documents analyzed were college catalogs and past performance funding reports from the fourteen public two-year institutions of higher education in Tennessee. Analysis was limited to these documents. The other documents supplied by the institutions only elaborated on concepts discussed in interviews or contained the same types of material found in the performance funding reports. Therefore, for consistency in analysis between all institutions in the study, the same types of documents were used for each institution. For the presentation of the document analysis, the institutions will be referred to by using the first fourteen letters of the Greek alphabet *Α-Ξ*.

Both types of documents, catalogs and performance funding reports provided information relative to changes that have taken place in the curriculum. The analysis of the catalogs provided information about what has historically been included in each institution's general education statements. This information highlights what the institutions say they value in general education. The statements are examined for content, placement, and length.

Catalogs: General Education Statements

The skills chosen for content analysis in the four catalogs from each institution were selected from three sources, *State-Based Approaches to Assessment in Undergraduate Education: A Glossary and Selected References* (Boyer & Ewell, 1988) areas mentioned during the on-campus interviews; and the general education statements in the catalogs. These terms include *critical thinking, problem solving, communication, quantitative reasoning, creativity, decision making, values, attitudes, functioning effectively within society, citizenship, responsibility, reading, writing, math, speaking, listening, humanities/arts appreciation, understanding sciences, technology awareness, computer literacy, interpersonal relationships,* and *social and cultural diversity.*

At the beginning of cycle one, 1982-83, only four of the fourteen institutions in the study had general education statements. By the beginning of cycle two, 1987-88, eleven of the fourteen had general education statements. By the beginning of cycle three, 1992, all fourteen institutions had general education statements. This represents an increase from 28% which had general education statements in 1982 to 100% which had general education statements by 1992. Table 4-2 depicts the number of occurrences of certain skills named in the catalogs from each performance funding cycle and identifies each institution and catalog year.

In Table 4-2 some overall patterns are identified. Mention of all general education skills analyzed in the general education statements has increased in general education statements from 1982 to 1996. Skills now included in general education but not

Table 4-2 Occurences of general education skills as specified in institutional catalogs by performance funding cycle and years mentioned.

Skills	# of Occurrences			College & Year of Occurrence													
	Cycle One	Cycle Two	Cycle Three	Α	Β	Γ	Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ
Critical Thinking	3	4	8		96	82	83&96	96	86	96	83-96		87			87-96	96
Problem Solving	2	3	10		96	82-95	83	87-96		91-96	92-96	96	87		87-96	87	96
Communication	1	6	11	92-96	96		88	87		91-96	83-96	96			87-96	87	87-96
Quantitative Reasoning		1	2		87					96							96
Creativity	2	4	5		96	82-95	83&88	87	86						87-96		
Decision Making	1	1	5		96	82		86-96		92	96						96
Values	4	14	21		87-96	82-95	83&96	87	86-96	91		96		83&88	87-96	87-96	87-96
Attitudes	1	2	6	92-96	96	82			86-92			96	87				
Society (Function Effectively In)	3	7	18	92-96	87-96	82	83	87-96	86-96		83-92					87-96	87-96
Citizenship	5	8	12		96	82-95	83	92-96	86-96		83-87			82-88	87-96		87-96
Responsibility	3	2	8		96	82-95		96		91			87				87-92
Reading	1	3	13		87-96	82-95	88-96	92-96	86-96	91	92						96
Writing	1	4	11	92-96	87&96	82-95	88&96	96	86	91	92-96				87		96
Math	1	8	10	92-96	96		83&96	92-96	86	91	83-92	96			87	87	87-96
Speaking	1	3	15	92-96	87-96	82-95	96	92-96	86-96	91	92-96				87		96
Listening	1	4	12		87-96	82-95	88-92	92-96	86-96	91	92			87-96			
Humanities Appreciation		8	15	96	87-96	82-95		87&96	86-96	91	83-96		87			87-96	
Understanding Sciences	3	9	22	92-96	87-96	82-95	88-96	87-96	86-96	91	83-96		87		87-96	87	
Technology Awareness		3	10		87-96			87	86-96	91		96				87-96	96
Computer Literacy		2	11	92-96	92-96		88-96	92-96				96				87-96	96
Interpersonal Relationships	1	2	2		96	82	88	92		96					87		
Social / Cultural Diversity	2	15	8		87&96	82	88&96	87-96		91	92	96	87		87	87	87-96

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mentioned in the 1982-83 catalogs are *quantitative reasoning, technology awareness*, and *computer literacy*. The greatest increase in mention from 1982-1996 is the skill of understanding sciences. The least increase in mention from 1982-1996 is interpersonal relationships.

This content analysis of the general education statements found in catalogs, revealed that the focus of stated general education skills by institutions has changed during the time period from 1982-1996. The greatest areas of change are in three groups. Of these, skills related to using science and technology have had the most change. Next are skills relating to communication: speaking, writing, reading, and listening. Last are skills relating to humanities, values clarification, and functioning in society. The other trend that can be seen from this analysis is that there are no negative changes. The institutions have increasingly added general education skill areas of emphasis.

In addition to the content analysis of the general education statements, other physical characteristics of the statements were analyzed. Since cycle one, there has been a steady increase in the amount of physical space given to the general education statements indicative of more emphasis on general education skills. In cycle one, the greatest amount of space given to a general education statement was three-fourths of a page. In 1996, in cycle three, the greatest amount given is four pages. Not including the outlying space amounts, the average amount of space given to a general education statement in 1996 is about one page.

Analysis of the general education statements shows no mention of assessment in any of the institutions' general education statements. However, in each catalog reviewed, there is a generic testing statement located in the graduation requirements section. An example of a 1982 statement reads,

> Any or all students may be required to take one or more tests designed to measure general education achievement and /or achievement in selected major areas as a prerequisite to graduation, for the purpose of evaluation of academic programs. Unless otherwise provided for any individual program, no minimum score or level of achievement is required for graduation. Participation in testing is required for graduation. Participation may be required for all students, for students in selected programs, and for students selected on a sample basis. (Δ, 1982-83, p.51).

This generic statement has been modified to fit institutions' language. Institutions have included the specific assessment method that will be used, have added statements requiring students to release assessment scores to them, or have put the testing statement in the student handbook. Even with the modifications, the meaning of the testing statement has basically remained unchanged.

Catalogs: Curriculum

The focus of skills in the general education curricula has changed in some areas but not others throughout the three cycles of performance funding. In cycle one, twelve of the fourteen institutions had some identifiable general education program. In cycle two, thirteen of the fourteen institutions had some identifiable general education program. By cycle three, an identifiable general education program was still in thirteen of the fourteen colleges. There is one technical institute that does not have an identifiable general education curriculum.

Table 4-3 outlines the general education curricula from the fourteen institutions during the three cycles, beginning with cycle one as a baseline. It depicts changes using arrows to show increases (↑) and decreases (↓) in number of hours required. All hours for curricula depicted in Table 4-3 are semester hours. Hours from cycle one and two have been converted from quarter hours for consistency. The conversion was done by dividing the number of quarter hours required in each area by 1.5 and rounding to the nearest whole number. The hours are reflective of the general education required for the Associate of Science degrees.

There have been definite changes in the general education curricula at the institutions over the time period of this study. Each community college has consistently required six hours of English composition. The two technical institutes that have had a general education curriculum since cycle one have had a nine hour English requirement. During cycle one, only two institutions required courses in public speaking. This increased to eight institutions requiring speech in cycle two and to twelve in cycle three. All of the community colleges have had a humanities requirement since 1982. The average number of hours required in humanities in cycle one was 8.8 hours, with all community colleges except one requiring at least one literature course within the required humanities courses. Only three institutions made changes in the humanities area in cycle three. One was a community college which decreased the humanities requirement by three hours. A second community college increased the literature requirement from four to six hours but did not increase the total number of hours required. The third was a technical institute which became a community college and then increased its humanities requirement to nine hours, six of which are required to be literature.

The area of social science has had more change than any other area. In cycle one, only three of the community colleges and two of the technical institutes had social science requirements. The required number of hours in social sciences at the technical institutes was higher, on average, 5.25 hours, than required at the community colleges, 4 hours. In cycle two, four of the community colleges required a social science. The average number of hours required at community colleges in social science had increased to 4.2 hours. Two of the technical institutes also required an average of 4.75 hours of social science, somewhat less than what was required by technical institutes in cycle one. By cycle three, seven of the community college had social science requirements that averaged 3.85 hours. One technical institute also required three hours of social science.

The American history requirement at the community colleges remained consistent throughout the three cycles. Each community college has had a history requirement of six hours throughout all three cycles. None of the technical institutes has ever had a history requirement.

Every community college has always had a math requirement in general education. In cycle one, the average number of hours required in math was 2.65. In cycle two, the average number of hours required in math was 2.14. In cycle three, the average number of hours required in math was 3.00. The discrepancy in hours between cycle one and two is due to the conversion to semester hours at all state institutions. The technical institutes by nature have always required math. In cycle one, the average number of hours

Table 4-3 General education curricula changes by college through the three performance funding cycles.

Institution	Cycle One		Cycle Two		Cycle Three	
	# of Hours	Increase/Decrease	# of Hours	Increase/Decrease	# of Hours	Increase/Decrease
Α	33	Baseline	33	—	38	↑3 Spch . ↑3 Comp. ↑1 Math ↓2 P.E.
Β	33	Baseline	39	↑2 Spch. ↓2 Math ↑4 Nat.Sci. ↑2 Comp.	37	↑1 Spch. ↑1 Math ↑1 Comp. ↓3 Hum.
Γ	39	Baseline	39	—	43	↑1 Soc. Sci. ↑1 Comp. ↑3 Hum. ↑1 Math ↓2 Spch.
Δ	33	Baseline	36	↑3 Spch. ↑1 Math ↑2 Comp. ↓3 Hum.	37	↑1 Comp.
Ε	35	Baseline	43	↑2 Spch. ↑ 6 Soc. Sci	45	↑1 Spch. ↑1 Math ↑4 Comp. ↓4 P.E.
Ζ	36	Baseline	43	↑3 Spch. ↑2 IDS ↑2-3 Comp.	39	↓2 P.E. ↓2 Comp.
Η	30	Baseline	24	↓4 Nat. Sci. ↓2 Soc. Sci.	44	↑9 Hum. ↑6 Hist. ↑4 Nat. Sci. ↑3 Spch. ↑2 P.E. ↑1 Soc. Sci. ↑ 3 OTC ↑3 Comp. ↑6 Math ↓3 Eng.
Θ	0	Baseline	0	—	0	—
Ι	0	Baseline	42	↑6 Hist. ↑3 Math ↑2 P.E. ↑6 Eng. ↑9 Hum. ↑3 Spch. ↑6 Nat. Sci. ↑3 Soc. Sci. ↑3 Comp.	44	↑2 Nat. Sci.
Κ	33	Baseline	35	↑2 Comp.	44	↑3 Spch. ↑1 Math ↑1 OTC ↑3 Soc. Sci. ↑1 Comp.
Λ	35	Baseline	35	—	43	↑1 Spch. ↑2 P.E. ↑4 Nat. Sci. ↑3 Comp. ↑2 Soc. Sci.
Μ	18	Baseline	18	—	17	↑3 Hum. ↓1 Eng. ↓2 Soc. Sci. ↓1 Math
Ν	34	Baseline	36	↑1 Comp. ↑1 MIR	42	↑3 Spch. ↑1 Hum. ↑1 Soc. Sci. ↑2 P.E. ↑2 Comp. ↑1 Math
Ξ	33	Baseline	39	↑2 Spch. ↑2 Comp. ↓2 P.E.	41	↑1 Comp. ↑1 FYE ↑1 Math ↓2 P.E.

An up arrow [↑] indicates an increase in hours required in an area. A down arrow [↓] indicates a decrease in hours required in an area.

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required at technical institutes in math was 10.75. It remained the same in cycle two. In cycle three, the average number of hours required in math decreased to three.

Natural science requirements have remained relatively consistent at community colleges throughout the three cycles. In cycle one, all but two community colleges required eight hours of natural science. The colleges with the eight hour requirement allowed the option of taking two science courses or one science course and one math course. In cycle two, only one community college was still giving the choice of two science courses or one science course and one math course. By cycle three, all community college required eight hours of a natural science. Only one technical institute has had a science requirement. This was during cycle one and two because it became a community college by cycle three. This technical institute required eight hours of specified science — physics — in cycle one, and four to eight hours of non-specified science in cycle two.

Computer literacy is the area which has seen the most increase in the number of hours in general education. In cycle one, no two-year institutions required any computer courses. In cycle two, eight of the community colleges had computer literacy requirements averaging 2.06 hours. By cycle three, eleven of the twelve community colleges had computer literacy requirements averaging three hours. None of the technical institutes has had a computer requirement during the three cycles.

Physical education has also been consistent as a requirement at most of the community colleges but not at the technical institutions. Throughout cycles one and two, all except one of the community colleges had an average physical education requirement of 2.8 hours. In 1996, nine of the community colleges still have a physical education requirement, and the average number of hours has dropped to 2.0. The technical institutes have not had physical education requirements during the three cycles.

To address campus needs, some of the community colleges but no technical institutions have added specialized courses to the general education core. These specialized courses began appearing in cycle two. One community college has a one hour interdisciplinary studies course. Another has a media information resources course. One college started an orientation to college course for one hour credit. By cycle three, four community colleges were requiring a one hour orientation to college or freshman year experience course.

Regarding the general education curricula overall, the two-year institutions of higher education in Tennessee follow the distributional approach to general education. The average minimum number of hours required in general education has increased from 33 semester hours in 1982 to 39 semester hours in 1996. In 1987, the TBR set forth the minimum requirements in general education for university parallel programs to be 32 hours. On average the institutions have exceeded this requirement. The same 1987 TBR policy stated that 25% of an A.A.S. degree must be general education (TBR Policy 2:01:00:00 p.2). This percentage is 16 hours of total hours for most A.A.S. degree programs. In cycle one, two of the four technical institutes' programs already exceeded this requirement by one hour and the other by fourteen hours. In cycle two, one of three technical institutes exceeded the minimum by one hour, and one by eight hours. The other technical institute did not outline its general education curricula. By cycle three, of the two remaining technical institutes, one exceeded the minimum by one hour and the other still has no stated required general education curriculum.

Performance Funding Reports

The other portion of the document analysis consisted of a thorough review of three standards of each performance funding report: general education, mission specific objectives, and improvement actions. Table 4-4 lists activities showing these report standards from 1982 through mid-1996 related to general education assessment results being used to influence curriculum and course content. An examination of the activities mentioned in the past performance funding reports has determined that the activities relating to changes in the curriculum and course content emerge into three areas. The first is the development of new courses to enhance the general education curriculum. Second is the development of certain competencies to be included in general education courses and syllabi. Third is the revision of courses to address weakness determined from assessment results. Another trend shown in the table is that there has been a steady increase in the number of activities related to changes in the curriculum and course content as the three performance funding cycles have occurred.

Table 4-4 Curriculum and course content activities performed based on general education results by type and cycle

Activities Performed Based on General Education Results By Type and Cycle

Type of Change	Cycle One	Cycle Two	Cycle Three
Curriculum Course Content	- Added more electives and new courses to improve curriculum	- Pre-requisite courses determined for all Level -one courses - Gen. Ed. core for AAS degree exceeds SACS guidelines - Gen. Ed. core revised to include SACS courses - Master syllabi prepared for all level one courses - Career programs modified to include: math communications, computer, arts, and sciences - Curricula deleted and added - Analysis of existing courses for general education content (2) - Incorporated new general education outcomes into already developed courses (2) - Implemented Title III competency based instructional improvement and student retention projects - World fiction course developed - Three social science courses developed - All curriculums now require oral communications course - Specialized courses developed to enhance knowledge in the arts	- Incorporate critical thinking into all coursework beyond general education - Critical-Thinking-Skills-Across-the-Curriculum - 21 arts and science courses deleted from 1995-96 catalog through the self-study - One + general electives included in all A.S. degree programs - Develop more consistency across all math courses, develop new math courses - Design and implement new ethics course - Replace Western Civilization with World Civilization to broaden students view - Change IDS course name to "Critical Thinking", "Critical Thinking" course re-vamped - Text changes in literature course - Class developed to teach students how to learn - FYE courses will begin to incorporate e-mail - Revision of 15 Engineering Technology syllabi to include oral presentations - New math course offered - Move toward competency based courses - Added new course in humanities - Lighted R/D load of full-time faculty so they may focus on refining the curriculum - Competency based syllabi were developed across-the-curriculum - Form developed to evaluate any course used in general education core to determine the competency that it represents - Restructure courses in curriculums that do not meet general education goals

Numbers in ( ) denote the activity taking place at that number of institutions.

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Composite Response

General education assessment activities have influenced changes in general education curricula in eleven of the public two-year institutions of higher education across Tennessee. Answers to the questionnaire, responses given by participants in interviews, and catalog and performance funding reports illustrate these changes. Any one of these resources alone indicates impacts from the general education assessment on the curriculum. The triangulation of all three sources validates the conclusions.

The questionnaire answers document the participants' claims to be mainly using standardized tests to assess general education. The statements in interviews show that the institutions have been using either the CBASE or the ACT COMP. Other useful sources of information were employer feedback and feedback from four-year institutions. The interviews also gave the respondents the chance to say how much they value the results from the Enrolled Student and Alumni Survey. Those interviewed placed a high value on those results; however, they are not completely satisfied with the way that general education is being assessed. In answering the follow-up interview question to that response, the participants said that they would like to see a more multifaceted assessment of general education. They said that it should be more focused toward individual campus needs and that they wanted more control over what was used to assess students.

The participants said the top five things they wanted to assess with general education assessment are computational skills, problem solving skills, reading skills, writing skills and critical thinking skills. They also said that most student data that they are receiving are about these same five skills.

The participants stated that general education assessment is having slightly more than *some* impact on curriculum and course content. When asked what effect general education assessment has had on the curriculum and course content, interviewees gave specific examples of changes in the curriculum which could be tied to general education assessment results. Even more examples of course content changes can be tied to the general education assessment. The interviews also demonstrated that the participants who said that their institutions were analyzing the general education results and putting them to use had more positive experiences to share about change than did those few participants who clearly indicated that their institutions were not analyzing or using the results.

Together the documents show a historical perspective of changes that have taken place over time in the general education curricula. The catalogs give snapshots of the curricula during the three performance funding cycles. The past performance funding reports verify the changes that took place and show whether or not they are based on the use of assessment results. Using all three sources of information together provides verification that, overall, the public two-year institutions of higher education in Tennessee are using the results of the general education assessment to impact changes in the curriculum and course content, and it also provides examples of those changes.

Research Question Two

Has the assessment of general education resulted in changes in the instructional delivery strategies and methods used in general education?

Questionnaire

Questionnaire items relating to changes in instructional delivery methods and strategies are items four, eight, twelve, thirteen, seventeen, twenty and the open question. Responses will be presented in textual format. Responses to questions four and eight on the questionnaire are answered under research question one relating to curriculum. The individual responses will not be reiterated here.

Questionnaire items 12, 13, 17, and 20 were responded to on the previously described Likert Scale. For each of the Likert Scale responses regarding instructional delivery methods and strategies, the responses range between *little* and *some impact*. For specific item responses refer to Table 4-5. Responses to the open question did not refer to any information regarding changes in instructional delivery strategies or methods.

Interview Questions

The interview questions relating instructional delivery methods and strategies are one, two, three, six, seven, and ten. Each of these interview questions, with the exception of number six, has been presented in response to changes in the curriculum. In this section, only individual responses to interview question six will be given. Please refer to the section on research question one relating to curriculum about responses already presented for interview questions one, two, three, seven, and ten.

Table 4-5 Responses to Likert Scale Questionnaire Items 12, 13, 17, and 20.

Item	Question	Response
12	How much of an impact has the assessment of general education had on general education instructional delivery methods?	2.68
13	How much of an impact has the assessment of general education had on general education instructional strategies?	2.88
17	How much of an impact has the assessment of general education had on teaching assignments in general education?	2.44
20	How much of an impact has the assessment of general education has on the overall general education program?	2.84

In interview question six, the researcher asked the participants how general education assessment has affected the way general education is taught. Twenty-one of the interview participants said that they could see an impact on teaching. Two participants said that efforts had been made to provide speakers about different ways of teaching, but they are not aware of how these changes have specifically impacted teaching. Ten participants said they could see no impact. One participant did not respond. The following responses provide examples of how the participants do see an impact.

- "We have had departmental objectives...about changing the way we are doing mathematics instruction. This came out of our dissatisfaction with test scores in the mathematics area." (FF)

- " It has been a gradual process. There is more technology. Our English Division has a project going with the graduate English department at _____ ______ University. Hereby, our students can e-mail their papers to the graduate students there for assistance." (DD)
- " We have re-written one of our composition courses so that some sections are taught with much more emphasis on applications in a[n] effort to aim at particularly older students. [sic] In math, I guess in the past five years the biggest change has been the increased use of graphing calculators." (BB)
- "I think that because we have been made aware of what our general ed. assessment...our standing... let me use an example. [sic] I think the concern for problem solving, thinking, basic mathematical, writing skills across the curriculum...I can say the individual professors probably have tended over the years, put more weight on those, in response to the feedback we get from the assessment." [sic] (T)
- "We teach general education skills not just in terms of content but through instructional methods. We teach cultural literacy through subjects content, information literacy through a context of a discipline. [sic] It's just all pretty connected." (R)
- "I think the science areas, [sic] we are doing a lot more with the labs, more hands-on, more going outside of the classroom, more interaction with industry." [sic] (Q)

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- "I guess our biggest change has been a move away from instructor-centered instruction. We have, in our math and science area, moved into a more of a collaborative learning approach. We instituted microcomputer-based laboratory approach to teaching physics. We incorporate the lab. So, that now instead of having a separate lecture lab, these students are now in class in what we call a six hour block." (K)

Documents

Performance Funding Reports

The documents reviewed that relate to instructional delivery methods and strategies are the past performance funding reports. The activities are taken from material presented in three standards— general education, mission specific objectives, and improvement actions — of the past performance funding reports from 1982 through the mid-year report for 1996. How they represent how general education assessment results have been used to influence instructional delivery methods and strategies is shown in Table 4-6.

The activities that are mentioned in the performance funding reports relating to instructional delivery methods center around three categories. First is the presentation and discussion of assessment results to better inform faculty of student general education assessment results. Second is writing being included in courses outside of English. Third is an increased use of technology and computers to aid instruction. Another trend that can be seen simply by looking at the table is that as each cycle passes there are an increasing number of activities related to the use of assessment results.

Table 4-6 Instructional delivery methods and strategies activities performed based on general education results by type and cycle

Activities Performed Based on General Education Results By Type and Cycle			
Type of Change	**Cycle One**	**Cycle Two**	**Cycle Three**
Instructional Delivery Methods and Strategies	Distributed ACT COMP results to all divisional units	- Writing-Across-the-Curriculum (3) - Faculty and administration inservice to better understand ACT COMP results and purpose of the assessment (6) - New equipment purchased - Faculty handbook developed - Group projects, oral and written reports encouraged in all classes - Incorporate computers into math and sciences courses - Emphasize the use of the scientific method - Faculty stress importance of problem solving in classroom experience	- All new faculty must take ACT COMP - Increase strategies across the curriculum to improve problem solving (4) - Faculty workshops on critical thinking (4) - Patricia Cross' classroom assessment techniques employed in Business courses - More technology in math classrooms - Critical-thinking-skills-across-the-curriculum - Faculty met to discuss assessment scores and strategies for improvement (5) - Nursing student had debate included as part of course requirement - Increase writing across all disciplines (5) - Campus wide style manual for writing (2) - Increased the use of graphing calculators (2) - Increased the use of hands-on-learning and cooperative learning in math courses (3) - Students encourage to take college level math 1st semester after DVS math - Incorporate computer instruction into the classroom (2) - Literature encouraged outside of literature courses - More hands on and problem solving taught in the sciences - Incorporate more economics and student analysis into social science courses - Workshops held on writing - Increased the emphasis on statistics and technology in math (3) - More field trips and the use of technology in science courses(4) - Upgrade software and hardware to be used in classes - More incorporation of arts into classes and outside of the classroom activities

Numbers in ( ) denote the activity taking place at that number of institutions.

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Composite Response

The assessment of general education has resulted in changes in the instructional delivery strategies and methods used in general education at most of the public two-year institutions of higher education across Tennessee. Due to the individualized nature of these types of changes, they are not clearly tied as directly to the use of assessment results as are changes to the curriculum or course content. The connection is there and is more evident in responses given by participants in interviews than in performance funding reports. The responses to the items on the questionnaire also provide another form of data collection to support the information from the other two sources. The triangulation of all three sources serves the purpose of validation.

Responses to items 12, 13, and 17 on the questionnaire suggest that general education assessment has had between little and some impact on the instructional delivery methods, instructional strategies, and teaching assignments in general education. This indication of little-to-some impact is strengthened by the examples given during the interviews. The participants spoke of subtle changes in how assignments are given to include more writing. There were examples or more out-of-class participation for labs and interaction with industry. There are many examples of the use of computers for teaching other concepts. Analysis of the performance funding reports shows many examples of faculty making changes and also of opportunities being provided for faculty workshops to learn about new teaching strategies. Therefore, there is no lack of impact as would be indicated by only considering the questionnaire responses. Many changes are taking place at the classroom level. These are subtle changes and are not as easily documented as a change in curriculum or a change in course content.

Research Question Three

Has the assessment of general education resulted in changes in student learning experiences and activities?

Questionnaire

Questionnaire items relating to student learning experiences and activities are three, four, seven, nine, fourteen, fifteen, sixteen, eighteen, nineteen, twenty, and the open question. Responses will be presented in textual format. Responses to question four have been presented in research question one relating to changes in the curriculum. They will not be reiterated here. Responses to questions seven, nine, fourteen, and nineteen on the questionnaire required follow-up interview questions. The interview questions responses will be presented following each of the responses to the individual questions for clarity.

Responses to item three reveal how two-year institutions of higher education in Tennessee are stating their goals for general education. The majority, 93%, of the institutions have formally stated general education goals. Only 4% of the respondents said they did not have formally stated general education goals. The most common place for these goals, 80%, is *in the general education statement of the catalog*. Other places where statements are found, in descending order, are the *mission statement*, 51%; *other documents*, 22%; the *student handbook*, 20%; the *faculty handbook*, 17%; and 2% responded *don't know*.

Question seven inquired as to why the institutions are involved in the process of general education assessment. The two most frequently stated reasons for being involved in general education assessment are its being a *requirement for the Performance Funding Program*, 97%, and its being a *requirement for Southern Association Accreditation*, 93%. These reasons were followed in descending order by the reasons of *institutional improvement of general education*, 77%; *to evaluate whether our students are achieving the goals we have set for general education*, 73%; *to set goals for general education*, 42%; and *to determine if the assessment that is being used for general education is appropriate to our institutional goals*, 37%.

Since external forces of the Performance Funding Program and SACS accreditation are stated as the two most important reasons for being involved in general education assessment, the researcher inquired through interview question 11 whether the participants thought that their institution would be involved in general education assessment if it were not for the Performance Funding Program and SACS accreditation. Of the eight CAO's participating in the interview, only one clearly said that the institution would not be participating in general education assessment. Six CAO's were affirmative without restrictions. One CAO said that the institution would be participating in general education assessment, but not as much as it is now. Of the 16 faculty members participating in interviews, 13 said that their institutions would participate without the Performance Funding Program or SACS requirements. Of the three who said their institutions would not be involved without external requirements, two were from the same institution as was the CAO that responded in the negative. Eight of the 10 performance funding coordinators replied that their institution would be involved in general education assessment without external requirements. The two performance funding coordinators who responded in the negative are the past and the present coordinators at the same institution from where faculty and the CAO responded negatively. Thus the evidence points to the conclusion that 13 of the 14 two-year institutions of higher education in Tennessee would presently be assessing general education without external requirements to do so. However, without the external pressures of the national assessment movement, the implementation of the Performance Funding Program, and the SACS general education assessment guidelines this present willingness to assess general education might not have emerged.

Questionnaire item nine asked if the general education assessment at their institution is a requirement for graduation. Eighty-seven percent responded *yes*. Eleven percent responded *no*. Two percent responded *don't know*. Above one response was written "Performance Funding Testing". Above another response, "Is taking the ACT COMP a graduation requirement?", was written in and then responded to with *yes*. The responses to this question required a follow-up interview question in an effort to ascertain why five respondents had said that general education assessment was not a graduation requirement. The responses to that interview question were enlightening from a philosophical perspective.

Interview question twelve asked the participants two things. First, "How did you interpret question item nine on the questionnaire?" that asked if general education assessment was a graduation requirement and second, "How does your college use the assessment as a graduation requirement?" It was found that questionnaire item nine was interpreted in two different ways (1) "Do the students have to take the test?" and (2) "Do the students have to pass the test?". This led to the discovery of the philosophical viewpoint of the majority of the participants. As the participants began to describe how their institutions used the general education assessment as a graduation requirement, they expressed a great deal of frustration and philosophical wondering . The predominant theme in the responses was frustration. This frustration centered around three different problems. The first problem is that they require the students to take the test but not achieve any certain score. This problem is exemplified through the following responses.

- "It is a process that the student must go through in order to receive their diploma, but it is a process that allows for some exceptions and reasonable excuses. It is not a requirement like you must have a 2.0 average in order to graduate." (FF)
- "It is required that they all must take the CBASE. It does not affect the student. I see this as a problem." (DD)
- "We require each student to go through the process. By virtue of not tying that in any way back to their status as a standard graduation, led me to believe that technically it's not a requirement for graduation." (Z)
- "They don't get their diploma if they don't take it, but they do not have to pass it, which is one reason they don't pass it." (Y)

The second frustration is that the requirement is not completely enforced because of extenuating student circumstances. This frustration is exemplified in the following comments.

- "Well, it is just plainly no, because it is not. Have [sic] to take the test unless there's some major reason that we may try to excuse them There's no assessment that effects graduation except . . . if you take the courses." (HH)
- "There are reluctant participants, and then there are some legitimate excuses that I have to sign off on...." (FF)
- "...put into effect a process whereby a student has to ask if they are to be denied, but these have to be solid reasons why. [sic] They are not just 'I won't come'." (EE)
- "They have to take the test or have the requirement waived...or they do not get degrees." (BB)

The third frustration is that there is little motivation on the students' parts to do well. The following responses exemplify this frustration.

- "I mean they're not as serious about the test, and we try to prepare them for it. I'll sit down here and mark something, but I don't promise that I'm going to do very well." (EE)
- "Students do not take it seriously." (DD)
- "There is no incentive whatsoever for the student and as a result we get all sorts of low scores because they just don't care." (W)

- " There's no punishment. There's no reward. There are no teeth in the word requirement. Because of the poor motivation, I don't get to excited if the scores in an area go down one year."(Q)

Examining the responses to interview question 12 allowed the researcher to determine that the philosophical viewpoint (that if there is an exception to the requirement then it is not a requirement) explains the responses *not a requirement*.

Questionnaire items 14, 15, 16, 18, 19, 20, and the open question were answered on a Likert type scale. Responses to item fourteen indicate slightly over *some impact* on student learning in general education. Responses to items 15, 16, 18, and 19 indicate that there has been between little and some impact on student experiences, counseling, advising, graduation, and remediation from general education assessment. Please refer to Table 4-7 for the specific item responses.

The average response of 3.08 to questionnaire item 14 raised two questions. First, what information sources are there that would inform this response? Second, what did the participants see as the relationship between general education assessment and student learning? These follow-up questions were asked during the interviews.

Table 4-7 Responses to Likert Scale Questionnaire Items 15, 16, 18, and 19.

Item Number	Question	Response
14	How much of an impact has the assessment of general education had on student learning in general education?	3.08
15	How much of an impact has the assessment of general education had on student experiences and activities programming to enhance general education?	2.97
16	How much of an impact has the assessment of general education had on counseling and advising student about general education?	2.65
18	How much of an impact has the assessment of general education had on graduation of individual students?	2.34
19	How much of an impact has the assessment of general education had on the referral of individual students for remediation?	2.47
20	How much of an impact has the assessment of general education had on the overall general education program?	2.84

Interview question eight asked the participants how they knew general education assessment had impacted student learning. The responses fell into three categories. First was hard data sources: assessment results, survey results, and internal evaluation.

- "So, I think the results do form some body of data you can look at and get a very positive feedback on or get some negative feedback on." (EE)

- "Higher CBASE scores." (DD)
- "I would say, I know because of increases in CBASE scores, [and] students perceptions of their own learning based on survey results." (R)
- "...when we go through the results of our general education assessment results,...alumni surveys,...enrolled student surveys,...employer surveys,... we ...determine what areas need improvement. [sic] We will put some type of assessment to each type of those action statements, such as improvements in College Base scores. If we reach our benchmark, then we assume the action statement had an effect." (G)

Second was an assumption that involvement in the process means there must be an impact.

- "Just going through the process of assessing general education and getting those results back, whatever they are. The administration and the faculty looking at them. That's got to have an impact on student learning." (FF)
- "Probably gut feelings. I'd say there's a kind of instinct. But, we don't do things unless there is an incentive to do things." (Z)
- "Other than just knowing that this is a general education field and that it must have some effect on things...I don't know of any way you really judge the relationship." (P)
- "I think the mere fact that we are measuring students in content knowledge and critical thinking, and that the college receives some money for that helps division chairs and faculty focus on what is happening to the student." (L)

Third was that the respondents did not really know.

- "Well, you don't know. The scores on exit exams relate back to general education, which we get data back on those. There's been an impact, but has there really been one that has effected...the answer is no." [sic] (HH)
- "I don't know what those are. You know I can point to...but I don't know concrete information. That's a very key question...I don't have a good answer right now." (CC)
- "If I was honest, I would have said there really isn't that much. I don't want to say none.....but the truth is nothing. We never know." (X)

In only one case was there no response.

In response to the second part of interview question eight about the relationship seen between general education assessment and student learning, There was one theme that came through in the answers. The participants knew that there should be a relationship and that it should be direct, but, at this point, they were not yet where they wanted to be.

- "It's not what it should be. It's a long way from what it should be. I think the way it's really going to happen is when its pretty much classroom based research." (BB)
- "The whole point in what we are trying to do to form this link between gen. ed. [sic] and assessment and student learning. We want to." (W)
- "...performance funding criteria are a pretty broad strategy for assessing general education. I think that's why it's such a driving force. I think

> that's why so many people link the two. I think it's really a matter of semantics now." (T)

The answers given in the interviews show that the link between general education and student learning is being made at some of the institutions. However others understand the link theoretically but have not yet put it to work practically.

Interview question 13 was asked to clarify the responses made on questionnaire items 18 and 19 and to determine whether or not the participants who answered *more than no impact* were truly referring to remedying the problem of individual students' performing poorly on the general education assessment. Responses by the participants to the interview question stated that there was no remediation of individual students who did not perform well because the testing is done at the time of graduation, and there is not time to remediate.

- "No, it is done too close to graduation." (DD)
- "It has no effect on remediation cause [sic] they're gone" (Y)
- "It is all done at the end. So, it has no impact on remediation" (W)
- "No, I don't think there's any connection at all between that and remediation." (P)

These answers showed glimpses as to why the responses of more than *no impact* were given on the questionnaire. It appears that some of the respondents were thinking in broader terms of using the results to remediate programs to help other students who come through later.

- "I think there could be some long-term feedback, but I think just to say per individual what effect does it have? I don't know that it does, and gain over a period of time, it could." (EE)
- "We're using the broad assessment to look at our programs, we're not using it to look at the progress of individual students. And, I don't think we make any effort to identify individual students on the ACT COMP...or anything like that" (V)
- "I think it has an impact of the overall picture, but I don't think specific." (U)
- "Can't say that we do. But it is used to help services for other students." (A)

Responses to the open question did not refer to any information regarding changes in student learning experiences or activities.

Interview Questions

The interview questions that relate to student learning experiences and activities are one, two, three, four, eight, nine, ten, eleven, twelve, and thirteen. Each of these interview questions, with the exception of number nine have be presented above in responses to research question one or two or as a follow-up to an item on the questionnaire relating to student learning experiences and activities. Only individual responses to interview question nine will be presented in this section.

Interview question nine asked the participants to describe the linkage between general education assessment and student services programming. Of the 34 interview participants, 20 said that they did see a linkage in the use of the general education assessment results. Fourteen said they could not see any linkage in the use of results for student services programming. Of those respondents who said they could see a linkage in the use of results, the majority said that the activities are cultural. The Enrolled Student and Alumni Survey results also influence student activities and programming more than they do the curriculum or the teaching strategies. The following are examples of participant interview responses that describe the linkage.

- " These students identified a lack of cultural activities on campus consistently across those questionnaires, so our student services division and some of our academic departments, like music and art, have gotten together and put in place several new programs that we feel address those concerns." (FF)
- "Extra-curricular activities can reinforce the general education program particularly as it applies to the arts and to the fine arts. Really even the program where we try to bring in industry leaders and get them to say we want someone that can listen, someone that can read, we want someone that can communicate, we want someone with a good understanding of mathematics."[sic] (EE)
- "We've had some specific areas identified under our general education assessment that we've used student services programming to address. Some dealing with cultural exposure of students, interdisciplinary exposures, students understanding of the arts and music." [sic] (T)

- "I'd say that the thing that I've stressed with them is the functioning within social institutions. You've got to teach them how to get along in this world, not be shooting themselves in the foot all the time." [sic](H)
- " The LRC was developed as a result of the Alumni Survey. Cultural Diversity has been addressed throughout the classroom, multicultural activities, and counseling services. Most of these needs are determined through the use of the surveys." (E)

From these participant examples it is seen that the participants at the public two-year institution campuses see the need for student services programming in relation to general education and the benefits that these types of programs can bring to the students.

Documents

Performance Funding Reports

The documents reviewed that relate to student learning experiences and activities are the past performance funding reports. The activities that represent how general education assessment results have been used to influence changes in student learning experiences and activities are displayed in Table 4-8. These activities were taken from material presented in three standards: general education, mission specific objectives, and improvement actions of the past performance funding reports from 1982 through the mid-year report for 1996.

Table 4-8 Student learning experiences and activities performed based on general education results by type and cycle

Activities Performed Based on General Education Results By Type and Cycle			
Type of Change	**Cycle One**	**Cycle Two**	**Cycle Three**
Student Learning Experiences and Activities	Made assessment mandatory	- ACT COMP becomes graduation requirement(2) - Increased the number of testing sessions - Increased cultural activities (4) - NEH grant for more activities in the arts - More SGA involvement (2) - Student activities hour - Advise students that some electives should be taken in general education (2) - Incorporate civic responsibility on campus	- General education assessment graduation requirement (14) - Improved test scheduling and student motivation (3) - ACT COMP given to students entering without the ACT scores - Personal interviews for each graduating student - Group testing by majors for the ACT COMP - Increased student cultural activities (5) - Increased field trips to cultural attractions - Student support program developed to help younger and African American students with the general education assessment - Increased student activities - Brought in nationally know speakers and musicians - Increased tutoring for sciences - Students given the choices between computer-based or traditional classroom instruction for English - Enrolled student survey used to improve testing procedures - Student activities included to aid incorporation of critical thinking into IDS course - Established Literary Club - Gave students tours of campus to show them where offices were if they needed assistance and to introduce them to personnel that could help them - More individual attention and guidance given in advising

Numbers in ( ) denote the activity taking place at that number of institutions.

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An overall trend shown by the table is that the activities relating to changes in student learning experiences and activities have steadily increased as the performance funding cycles have passed. One student experience that stands out when examining the performance funding reports is that now, as of cycle three, all institutions have made the general education assessment a graduation requirement. Other activities that relate more to student activities and learning emerge to form three categories: (1) an increase in the cultural activities that are brought to campus; (2) an increase in student government and clubs on campuses: and (3) an improvement in the testing accommodations and procedures used to give the general education assessment.

Composite Response

The assessment of general education has resulted in changes in student learning experiences and activities in general education at most of the public two-year institutions of higher education across Tennessee. Two institutions did not report any changes in the interviews. These same institutions' past performance funding reports described no changes in student learning experiences or activities. From questionnaire responses which asked about the impact of general education assessment on student learning in general education, student experiences and activities programming to enhance general education, counseling and advising student about general education, the graduation of individual students, and the referral of individual student for remediation respectively the responses fell either just above or just below *some impact*.

This prompted an inquiry during the interviews about how the participants knew that there had been an impact. When asked, the participants replied in one of three ways.

(1) They either knew of hard data to which they could refer; (2) they had a feeling that since they were involved in the process of general education assessment there must be an impact, or (3) they moderated their impact statements and said they really did not know.

Another interview question asked about the relationship between general education assessment and student learning. To this the overwhelming majority response was that the participants knew that theoretically there was a linkage. Some of the participants are making that link in practice and others are not. The last interview question that dealt with student experiences asked the participants to describe the linkage between the results of general education assessment and student services programming as they have observed them on their campuses. Of the participants that did see links, 20 out of 34, most thought that the biggest use of the results was to improve cultural activities brought to campus. Of the participants who admitted they did not see the link on campus, many lamented that they felt that it should be but had not been made.

However, the questionnaire and the interviews are only two parts of the data resources in this study. The past performance funding reports, which are the documents that relate to student learning experiences and activities, suggest that historically there have been and presently there are student learning experiences and activities occurring based on the general education assessment results. Most of these activities, as described in the interviews, focus on cultural activities relating to general education skills.

Other Significant Findings

While examining ways the information from data sources related to each research question, the researcher also analyzed data sources using the coding scheme of Bogdan and Biklen (1982). This coding scheme allowed for examination of participant ways of thinking, activities, processes, and strategies using general education assessment. The activities and processes determined from the analysis of the data sources were included above in the presentation of each research question. The ways of thinking and strategies that emerged from reading past performance funding reports and listening to participant interview responses begin to explain the reasoning behind actions taken and processes used.

There are few past performance funding reports available from cycle one. Only four participants had been involved in the process through all three cycles. The patterns in ways of thinking and strategies used represent the second and third performance cycle. Excerpts from past performance funding reports and interviews will be used to support the patterns presented. Since interview participants spoke within the third cycle time frame (the present) supporting evidence for patterns in cycle two is from past performance funding reports. Participant interview responses are labeled using alphabetical lettering. The excerpts from past performance funding reports are labeled using the Greek alphabet letter of the institution and the year of the report.

Ways of Thinking

Cycle two of performance funding, 1987 - 1992, was a phasing-in period of general education and its assessment for two institutions. Other institutions that had been assessing general education in cycle one were beginning to analyze the ACT COMP results to determine areas of weakness in general education. Areas of weakness discovered from the analysis were addressed through curriculum revision, changes in course content, changes in instructional methods, and/or student activities. During cycle two, the focus was on correcting areas in which weaknesses were found in general education skills, as measured by the ACT COMP as is referenced by these excerpts from actual performance funding reports submitted to the TBR and THEC by the two-year institutions.

- "Standard V - Improvement Variable III Outcomes of General Education Writing-Across-the-Curriculum was implemented. Master syllabi were prepared for all Level 1 courses to ensure continuity of content. General education outcomes measured by ACT COMP require a variety of cultural and civic activities to compliment a quality classroom instructional experience. Toward this end, special courses were offered and others added to the curriculum. A symposium of humanities was offered sculptures were exhibited with accompanying literature."(A, 1987)
- "Standard III - ACT COMP Sub-test Areas of Enhancement Solving Problems - Faculty will stress "scientific method" in their classes. Computers will be used in the math lab for problem solving. They [sic] will teach the process of how to solve a problem." (Ξ, 1987-88)

- "Standard III - General Education Outcomes- In 1989-90, scores were still below the midline. The focus will be on the three lowest areas, Using the Arts, Solving Problems, and Clarifying Values." (H, 1990-91)
- "Standard V - Corrective Measures Weakness - Deficient general education curriculum requirements in university parallel programs. Action - Revised math, social science/economics, and oral communications courses implemented. Increased emphasis through instruction placed on general education competencies as measured by the ACT COMP and the College Board's Project Equality." (E, 1987-88)
- "Standard V- Corrective Measures - Low scores in ACT COMP 1984, 1985, 1986 in communications. All degree programs were redesigned at the time of the semester conversion to require a course [sic] in oral communications." (N, 1987-88)

In the beginning of cycle three, institutions were given the opportunity to change general education assessment instruments. Eight of the 14 institutions switched from the ACT COMP to the CBASE; two of those eight have now switched back to the ACT COMP. The change to different general education assessment instruments is referenced from the following participant interview responses.

- "I tell you another issue. There was the changing of the general education instrument. I think people felt that the ACT COMP was so nebulous and subjective that we could not sink our teeth into anything. Since we've been dealing with the College Base, I'm not sure that any instrument is ever going to measure general education. But, it is at least more tangible. We've tried to do some corrective measures based on that." (CC)

- "We use the ACT COMP because it represent a better idea of what we think we are doing in general education. The more routine things we do in addition to the ACT COMP include: spreadsheets for course evaluations in the general education core, transfer equivalence tables and articulation agreements, syllabi for courses in core [sic], [and] inservice faculty presentations..." (A)
- "Given the option of switching instruments, I would say that the College Base is probably appropriate in our circumstances. We had a number of individuals that did not think the ACT COMP was appropriate." (G)

For those institutions that switched to the CBASE and stayed with it, there is a time of re-education about the assessment, about what it measures, and about how to interpret the results. The reeducation process is referenced in the following excerpts from performance funding reports.

- "Standard X - Improvement Measures III - General Education - Need [sic] for college to research structure and format of CBASE as it relates to college's general education program. The college obtained information about CBASE that was given directly to faculty, staff, and students. Need to have all college faculty to become familiar with the CBASE. Need to make students aware of the new CBASE requirements and provide a preview of the exam. Need to begin the establishment of competency based instruction across the curriculum." (Ξ,1992-93)

- "Standard X - Improvement Actions - General Education Outcomes - Faculty will spend a portion of the Spring update conference in group meetings discussing CBASE results and item analysis and will formulate recommendations for improvements." (Δ, 1993-94)

Institutions which are using the ACT COMP, are still making improvements because their students are not performing some skills at levels which the institutions want them to achieve. This excerpt from a performance funding report is indicative of the examples cited in other reports.

- "Standard V - Corrective Measures - ACT COMP sub-scores at or below 50% in Using the Arts, Clarifying Values, and Using Science and Technology. Corrective Measures - Student activities were greatly increased nationally known speakers, outstanding musicians, and comedy shows [sic]. This increase in student activities has kept more student involved on campus and has exposed them to experiences that should increase general education scores." (Z, 1992-93)

By cycle three, 12 of the 14 institutions had been assessing general education for performance funding for ten years. Three institutions were not only mentioning general education improvement in standard ten, Improvement Actions; they were also addressing it in standard nine, Mission Specific Objectives. These excerpts from performance funding reports provide evidence of the statements made in the Mission Specific Objectives.

- "Standard IX - Mission Specific Objectives - 8.1 - Schedule staff development activities to instruct and encourage faculty on the inclusion of critical thinking and writing skills in appropriate courses. 8.3 - Provide analysis of the general education assessment scores to faculty for feedback into curriculum." (E, 1992-93)
- "Standard IX - Mission Specific Objectives - Goal - To improve writing as measured by CBASE writing score. Benchmark 286, Weight 1 point, Performance 286." (Δ, 1993-94)
- "Standard IX - Mission Specific Objectives - Goal: Z will increase the number of cultural events offered each year by one event per year during the five year cycle." (Z, 1992-93)

The trend is to improve in areas of general education even though many institutions are receiving the maximum number of performance funding points for Standard One, of the Performance Funding Program— general education outcomes. The institutions are trying to improve in the general education areas where they have set goals to improve instead of just focusing on the areas of weakness on the general education assessment. The following excerpts from performance funding reports and a participant interview response provide documentation of this improvement trend.

- "Standard X - Improvement Actions Weakness - Lower than desired scores in both percentile rankings and mean gain for the general education outcomes test. Will [sic] be addressed by providing opportunities to increase faculty and student awareness of critical thinking skills and the general education outcomes test and procedures." (Z, 1992-93)

- "Standard I - Measurement of General Education Outcomes - Although the College [sic] received full points for this Standard [sic], it is recognized that the scoring on the ACT COMP for 1994-95 was lower than the scoring for 1993-94. This Standard [sic] is targeted for improvement measures." (N, 1995-96 mid-year report)
- "Standard X - Improvement Actions - General Education Outcomes - Weakness: unsatisfactory scores on CBASE English Sub-test. Corrective Measures: Project All-Write, a faculty development initiative designed to promote the "write to learn" concept among faculty in all disciplines, was begun in fall 1993. Revisions in Engineering Technology, Journalism, and Finance courses have been made as a result. A Grammar Writing Hotline was piloted during spring 1994. The first Annual Rites of Writing Essay and Poetry Contest was held. As a part of an overall redesign of I's student success course, FYE 1000 will incorporate basic word-processing and electronic mail exercise as a means of promoting student writing fall 1994." (I, 1993-94)
- "Standard X - Improvement Actions - Weakness: The results of the CBASE revealed no appreciable weaknesses; however, areas in which the greatest percentage of low range scores were evident will be addressed through corrective instructional strategies. These areas include (1)

Reading Critically (2) Understanding Literature (3) Laboratory/Field Technologies, and (4) Political Economic Structures." (Z, 1993-94)

- "The way I see people approaching it is, [sic] O.K., here are the things that we've evaluated to performance funding, here are the things we've evaluated that SACS requires us, now what else can we look at. We have looked at some things and are reviewing some things and have made some changes that neither performance funding structure or [sic] SACS require us to do." (T)

Some institutions also reported that all points were received. Therefore, the institutions did not state any improvements in their reports. This lack of desire to improve if all points are received is shown in the following performance funding report excerpts.

- "Standard X - Improvement Actions - No identified weaknesses in general education since all points were earned." (A, 1993-94)
- "Standard X - Improvement Actions - All points received. No improvement actions listed." (K, 1993-94)
- "Standard X - Improvement Actions - No identified weaknesses under general education." (Γ, 1995-96 mid-year report).

Also, one institution reports improvements in general education, but in no way ties those results back to the use of general education results in the reports.

During the third year of cycle three, 1994-95, some institutions began using the results from major field exams, student surveys, and alumni surveys to correlate with the general education results to determine if there were similarities in skill strengths and deficiencies. These multiple indicators are helping these institutions make programming and curriculum decisions. The use of multiple indicators of different measures of general education are show in these excerpts from performance funding reports and a participant interview response.

- "Standard X - Improvement Actions - Weakness: Alumni dissatisfaction with general education math correlated with low scores on the ACT COMP in math was [sic] identified in 1992-93 mid-year report and reported in the 1992-93 performance funding report for corrective measures. The college has selected to re-identify the weakness for purposes of continued follow-up. There are changes in the math curriculum. Math ___ has been deleted and Math ________ a more relevant course was added. Calculators have been pilot tested in several math sections. Three alternative versions of algebra have been developed to better prepare student for math needs." (N, 1993-94)
- "Standard X - Improvement Actions - General Education Outcomes and Major Field Test - Weakness : CBASE scores on English test and perceptions of opportunities to express ideas in writing. Activity: Added writing assignments in Engineering Technology, fifteen syllabi revised to include oral presentations in all Engineering Technology." (I, 1994-95)
- "Standard X- Improvement Actions - Weakness: The major field and general education test both uncovered deficiencies in critical thinking. Measures: Bi-monthly brown bag where teaching critical thinking was the

topic. Teachers also shared examples that have been successful in their classrooms. Two teleconferences on critical thinking, workshops on using critical thinking in instruction [sic]." (M, 1993-94)

- "Well. you know, I guess to some extent, even though the ACT COMP is the official performance funding document, we always do quite a bit of looking at grade distributions, pass fail rates on general ed. courses [sic] particularly as we develop the workplace writing. See [sic]how that lays against our performance funding, the ACT COMP and we are sometime shocked to see, yes, there are some corollaries. So, this must be valid, you know." (EE)

An additional concern was expressed during the open remarks at the end of some interviews. This concern centered around the transfer process from two-year institutions to four-year institutions and the need for a common set of general education skills required of all students at the two-year institutions. The following participant remarks address this issue.

- "I think that when we do general ed. we really need to work in concert with universities. Try to get in line with them. Because, there's no use in trying to get general ed. here that won't work there. We all try to work together. I believe that I think general ed. needs to be strong. We need to get a defined body of courses, i.e. knowledge, and that [sic] everybody ought to have to take that and it shouldn't be 5060 courses they can choose from." (HH)

- "I think we need TBR standards and goals and then our mission [sic]that we are doing the things we need to be doing in order for our articulation to work. We want our students who go to another school to be at an advantage not at a disadvantage. We want to be sure that their education matches or exceeds that of the TBR schools." (Q)
- "We want to focus more on student outcomes and we want to look at the comprehensives, content, skills [sic] that are a part of that...also very interested when [sic] student's success after transferring. I say that with a community college transfer student the success of our program, that's how well our students are faring once they leave here, [sic] so if we could get some mechanism that would allow us to receive from transfer institutions this kind of information. As part of our strategic plan we have several questions we would like to see asked." (K)
- "General education should be a graduation requirement. But we do not want a minimum cut off score on some standardized test that may not fully reflect an institution's mission. We need a gen. ed. core and students should be required to complete the courses within the core with the necessary passing scores." (A)
- "I think the educational community is totally remiss is not coming to terms with an adequate, dependable, and generally understood definition of general education. I think the educational community has done a very poor

job of determining what skills are needed to survive in society. They need to get at it and define it." (B)

Strategies

In cycle two of performance funding, the public two-year institutions focused on three strategies for improvement of general education programs. The first was to examine the general education curriculum, course content, and instructional strategies to determine if they matched the institutions goals for general education. If these functions did not match with the general education goals then they were modified accordingly. This type of action is referenced in the following excerpt from a performance funding report.

- "Standard V- Corrective Measures - Weakness: Lack [sic]of knowledge and understanding by faculty and administration of value added and general education outcomes. Action: Inservice program [sic] provided to relevant faculty and administration for understanding of past ACT COMP results, and the intent of the ACT COMP. Weakness: Some career programs do not contain a basic core of general education. Action: Career programs were modified to include courses in communications, math, computers, the arts, and science." (E, 1987-88)

The second strategy was to use other programs that were being instituted during this time as a vehicle for strengthening general education. These programs included in the Tennessee statewide implementation of the Remedial and Developmental Studies Program in 1987, Title III grant money received for program improvements, and the new SACS guidelines implemented in 1987. Usage of the above mentioned programs to improve general education is referenced in the following excerpts from performance funding reports.

- "Variable V - Planning for Instructional Improvement - A project funded by Title III for 1987-88 will assist the institution in the accomplishment of goals related to the strengthening of the general education curriculum. The development of outcomes oriented courses instructional manuals and syllabi for sophomore general education courses. A workshop entitled "Writing in Science" was conducted in July 1987 as part of a Title II grant. This activity contributes directly to our three highest institutional goals: strong general education, transfer and career programs." (N, 1987-88)
- "Standard V- Corrective Measures - Solving Problems: Being addressed at the Remedial Developmental Level [sic]." (N, 1987-88)
- "Standard V - Corrective Measures - A curriculum review committee will be appointed to compile the faculty responses and determine pre-requisites for all level one courses." (A, 1987-88)
- "Standard V- Corrective Measures - General education core for all career programs revised to include courses for each of the SACS 4.3.1. areas for undergraduate curriculum, humanities, fine arts, social behavioral science, math, and oral and written communication." (E, 1987-88)

The third strategy was to focus on student learning outside of the classroom through improved student activities programming, more student involvement on campus, and more cultural programming for students. Examples of these types of activities are given in the following excerpts of performance funding reports.

- "Standard V - Corrective Measures - The cultural activities committee sponsored five events. The liberal arts area focused on five seminars about China, a seminar about Mexico, poetry, and theater presentations." (H, 1990-91)
- "Standard V - Corrective Measures - Using Arts - Outdoor sculpture exhibits [sic] also offerings [sic] in popular and classical music; student art is displayed in the LRC as well as floral arrangements." (Ξ, 1987-88)

During cycle three, the strategies for improvement included more focus on the dissemination and use of general education assessment results. The institutions now had several years of assessment results from which to examine trends. How results were disseminated and used is seen in these excerpts from performance funding reports.

- "Standard X - Improvement Actions - Corrective Actions: A faculty inservice was held on [sic] COMP. All faculty took COMP. A called meeting on COMP was held with the Instructional Improvement Sub-committee represented by faculty from all instructional areas. Faculty development will focus on desirable general education outcomes. All new faculty must take COMP. Faculty will promote value of COMP to students." (A, 1992-93)
- "Standard X - Improvement Actions - Strategies will focus on the cluster and skills measured by CBASE. Significant work on establishing course

competencies across the curriculum, including general education has provided a solid base for general education improvements." (Ξ, 1992-93)

One line of strategic thought focused around the idea that better analysis and presentation of the analysis of assessment results to the faculty and staff would improve general education assessment scores. This line of strategic thought is referenced in performance funding reports and also by a participant interview remark.

- "Standard X - Improvement Measures - In order to promote continued improvement of student scores a comprehensive analysis of the curriculum will be undertaken to ensure consistency between the competencies taught in the classroom and those measured on the CBASE. An instructional workshop which was begun during the current year for the ACT COMP will also be continued in succeeding years for the CBASE. During this workshop[sic] faculty will be provided information regarding specific characteristics of the instrument and the exam process. The combination of these activities should positively influence future test scores." (K, 1992-93)
- "Standard X - Improvement Actions - Weakness: CBASE English Sub-test. Action: Revised English Composition to include writing-across-the-curriculum. Weakness: CBASE Math Sub-test. Action: Faculty training in use of graphing calculators. Taught math courses in the computer lab, incorporated writing assignments. Weakness CBASE Science Sub-test. Action: Science faculty [sic] looking into use of qualitative

research techniques to explore new instructional technologies. Weakness CBASE Social Studies Sub-test. Action: Developed and offered new courses. Expanded electives in all career programs, added critical thinking applications and exercises to the introductory psychology courses." (I, 1992-93)

- "We have an institution where we have four days every year that we have no classes and we have campus-wide meetings. Usually [sic] beginning and middle of the fall and spring semesters. Any time I need to cover this with the campus as a whole, or with the faculty I have that time. We give all the faculty the results of the item analysis. We go over that." (H)

Participants also remarked that changes are not made without analysis of results to determine where the focus should be for improvement. Evidence is given to this statement through the following participant interview responses.

- "We noticed that scores in the areas of analysis were not as good as we wanted them to be [sic] and we have a course called IDS that used to be technology. It's sort of a technology and liberal arts course combined and we changed that to a critical thinking course and we require that course of everybody, A.A.S., A.S. and A.A." (Q).
- "I go through it and I pick out things that I think we shouldn't be too concerned about, cause [sic] they won't read it. I send this off to the people, all the division chairs, the president's council, and say [sic]

> these are the things I am concerned about. Now that doesn't mean it will end there because things are picked up and used." (D)

The analysis that is done is being used more at the departmental level. The following excerpts from performance funding reports and participant interview responses give evidence of this happening.

- "Standard X - Improvement Actions - Nursing presentations were geared toward critical thinking and problem solving. Dental Hygiene curriculum was reorganized to included additional critical thinking and problem solving approaches. Instructors in Business [sic] used Pat Cross's assessment techniques. Math students are assigned labs using the computer and graphing calculator to increase problem solving skills. Math and science faculty have attended workshops to increase their knowledge in these areas to help students." (B, 1994-95).
- "Standard I - General Education - There is a need to refine statements of purpose for all divisions and department to focus the educational goals and accompanying delivery systems. There is a need toexamine courses across the institution identifying those that meet general education requirements and restructuring others to bring them in line with the general education requirements. There is a need to identify the goals of general education to ensure that course content appropriately addressed these goals." (Ξ, 1995-96 mid-year report).

- "Standard X - Improvement Actions - Each division of the college was required to have one competency based course developed and ready to implement by the end of 1995. The courses developed included, General Chemistry, Environmental Biological Sciences, Business Applications for Microcomputers, and Basic Math." (K, 1994-95).
- "[The Performance Funding Coordinator] gives the information to the department chairs. Because she met with me and my department to talk about the test. So, I think it's having a real affect on the department chairs". (Y)
- " I think just giving the College Base is not enough. We are evaluated and dealing [sic] with the individual level of general education. The information we get from the College Base, [sic] we're looking at other things too. It allows us to go beyond what that exam tells us. Each division can handle that differently. And, in some ways, I think that we're more productive in evaluating general education because we don't have that unity of some adopted procedure that every department has to use." (T)

Another strategy is to use a more global focus. The institutions are now focusing on the comparison of results from more than the general education assessment instrument. They are using multiple indicators, such as Student Surveys, Alumni Surveys, and Major Field tests to compare results of assessment of general education skills throughout. The following excerpts from performance funding reports and participant interview responses provide evidence of the use of multiple indicators

- "Standard X - Improvement Actions - (1) Increased the opportunities for social and cultural activities for students — came about because of need noticed for Alumni Survey of past five years. Additions to Sculpture Garden, social and cultural activities by student services, and special lecture by faculty and staff. Student services organized a multicultural fair. (2) Developed and implemented additional strategies across the curriculum to increase student's problem solving and reasoning skills — need was determined by a continual emphasis on the need for employer problem solving skills by the Business Advisory Program and the Alumni Survey." (B, 1993-94)
- "Standard X - Improvement Actions - Relocation of The Learning Arts Center to increase visibility and student use. Tours of campus [sic] given to students to meet and talk to administrators. They were shown who to go to with specific problems." (Θ, 1994-95)
- "Standard One - General Education - Improvement Needed: The COMP has never been specifically linked to Δ's revised general education statement. Action Step: An analysis of specific item on the COMP assessment will be linked to each goal. Improvement Needed: Items from surveys used by the institution have never been explicitly linked to the college's general education statement. Action Step: These surveys will be

analyzed and items relating to each of the Δ's general education goals will be identified." (Δ, 1995-96 mid-year report)

- "We're going to make use of what we call external assessment which would be in our case Alumni Survey that we do every other year and also an Enrolled Student Survey that we do every other year, which is part of TBR policy." (W)
- "What we've started to work on is to try to relate specific questions on our surveys and specific item within the COMP instrument to our goals so we can try to focus a little better. We utilize the Alumni Survey and the current student survey. We also use the ACT Outcome Survey, and the Community College Student Experiences Questionnaire." (H)

Institutions have also moved toward the idea of continuous improvement. They are using program self-studies and SACS self-studies to examine the general education programs. The movement towards continuous improvement is seen through these excerpts from performance funding reports and participant interview remarks.

- "Standard I - General Education Outcomes - Weakness: College Base scores in mathematics. Improvement Actions: Math faculty engaged in professional development activities in preparation for the implementation of a Business Calculus Reform project in spring 1996. "Barrier courses" have been redesigned through the Title III program to improve student learning and course success rates. The mathematics department is currently undergoing program review, and additional improvement strategies are being developed as the faculty evaluate current course offerings in term of productivity, quality and effectiveness." (I,1995-96 mid-year report)

- "Standard X - Improvement Actions - General Education: Extensive curriculum revision will occur as a part of the self study process and the revised statement of general education outcomes. Twenty-one arts and science courses were deleted from the 1995-96 catalog. Most were identified by the curriculum committee in the strategic section of the institutional self-study. One or more general electives have been included in almost all A.A.S. degree programs." (Δ, 1994-95)
- "The other thing I tried to do when we developed the calendar is to coincide with the self-studies that they have to do for their accrediting agencies." (AA)
- "This whole process, and I've only mentioned three to four ways of gathering data ties into what is called an institutional wide approach through strategic planning." (BB)

The institutions are setting campus goals for the improvement of general education based on years of data and individual campus missions.

By examining the data from past performance funding reports and interview transcripts with Bogden and Biklen's (1982) accounting scheme, the change in the ways the institutions "think" about the assessment of general education can be seen. By cycle two, the institutions had assessed general education for performance funding for five years. The institutions to this point had been reactive in their attempts to use the assessment results for improvement of general education. The strategies that they were using were to analyze the data for weakness and then focus to improve that single weakness. The institutions were also using other programs that were being implemented at the time to "piggyback" general education improvement on. Too, this was the beginning of more use of out-of -class student experiences to impact learning of general education skills.

By the beginning of cycle three, there was a definite change on the part of most two-year institutions to be more pro-active in their improvement of general education. Institutions were given the opportunity to switch from the ACT COMP to the CBASE. Some institutions did, citing that the instrument better suited their goals for general education. Others stayed with the ACT COMP for the same reason. This decision on instruments exemplifies the institutions' commitment to continuous improvement. The institutions, for the most part, are improving in areas where their students are already scoring high enough to receive all performance funding points. These institutions want to meet their own goals. Some institutions have even put improvement statements about general education in their mission specific objectives. This is not to say that all institutions are at this point. There are a few who are still re-active to the yearly scores on the assessment and make no attempt to improve unless scores are low.

Some institutions are also using the correlation of data on multiple indicators as a means to know where improvement should be made. Additionally, institutions are distributing more and better analyses of the assessment and survey results to the faculty and staff. More linkages are being formed through campuses and within departments to use the results of the general education assessment in making decisions that impact general education. The focus has become more global. There is a better understanding of how all parts of a student education career relate to general education skills. The statements made about the need for a common core of general education skills that all students should know by a certain point also demonstrate this. The need for stronger general education skills is tied to the transfer articulation process. The participants see this as a way for all of the Tennessee higher education system to have an impact on the skills that students from two-year institutions take to four-year institutions and into the work-force.

Summary

The findings of this study show that the assessment of general education for the Performance Funding Program has had an impact on the curriculum, instructional delivery strategies and methods, and student learning experiences and activities at the public two-year institutions of higher education in Tennessee. Table 4-9 provides evidences of these changes as they relate to the research questions, ways of thinking and strategies. Items on the questionnaire give the participants' accounts of general education and general education assessment at their institutions and the impacts they believe these programs have had. This basic information has been expanded and clarified by interview responses which supported data gathered with the questionnaire. Finally, the document analysis gives a third source of historically cited examples and gives detailed descriptions of how each

Table 4-9 Evidences of changes in curriculum, instructional delivery and strategies, student learning experiences and activities, ways of thinking, and strategies impacted by the general education assessment for performance funding spanning the three performance funding cycles.

Areas of Impact	Evidence		
	Cycle One	Cycle Two	Cycle Three
Curriculum	• Average of 33 sem. hrs. required •Electives added to improve curriculum	•New courses developed to enhance general education curriculum •General education courses revised to address weaknesses determined by assessment results	•Average of 39 sem. hrs. required •Inclusion of general education competencies on course syllabi •Incorporation of critical thinking into general education courses across the curriculum •Emergence of orientation to college type courses
Instructional Delivery and Strategies	•ACT COMP results distributed to divisional units	•Implementation of faculty inservice to discuss assessment results •Writing-Across-the -Curriculum •Incorporation of computers into classrooms	•Faculty exposed to general education assessment by taking the actual assessment •Writing increased across all disciplines •Faculty workshops to increase teaching of critical thinking •Increase in out-of-class and laboratory work
Student Learning Experiences and Activities	•General education assessment made mandatory	•ACT COMP becomes a graduation requirement at two institutions •Cultural activities appear •Student involvement encouraged	•General education assessment is stated in the catalogs as a graduation requirement in all fourteen two-year institutions •Improvements made in the actual testing environment •Increases in student cultural activities relating to general education •Use of Enrolled Student and Alumni Survey results to improve student services
Ways of Thinking		•Reactive •Begin to see evidence in Performance Funding Reports of the usage of assessment results	•Proactive •Eight institutions change general education assessment instruments citing philosophical reasons •Three institutions mention general education assessment in mission specific goal statements •Correlation of different types of general education assessment results used in decision making •Concern about general education assessment and its relation to the transfer articulation process
Strategies		•Examine curriculum, course content, and instructional strategies for matching with institutional goals •Use of other programs being instituted to strengthen general education •Focus on student learning outside of the classroom	•Focus on dissemination of general education assessment results • Changes made based on the analysis of assessment results • Analysis focuses on the departmental level •Comparison of results from more than one gen. ed. assessment •Continuous improvement

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institution has used the results from general education to change curriculum, instructional strategies and teaching methods, and student learning experiences and activities.

Changes have taken place in the general education curricula at 11 of the 14 two-year institutions. In 1982, only two institutions required speech. Presently, 12 of 14 institutions have speech requirements. In 1982, five institutions had social science requirements. In 1996, eight of the 14 institutions have social science requirements. In 1982, no institutions required computer literacy courses. At present, 11 of the 14 institutions require computer literacy courses. Four of the institutions have also added orientation-to-college type courses. Furthermore, now encompassed within curricula are the changes that have appeared in course contents. These changes have focused on the inclusion of more technology in classrooms and a concentration on communication skills. These changes are tied directly to the use of general education assessment results.

The impact of general education assessment is also seen in the changes that have taken place in instructional delivery strategies and methods. These changes have taken place on the departmental and individual teaching level. Institutions have provided more discussion of the assessment results to their faculties, and this information has better enabled the faculties to use the information for improving classroom instruction. Many of the institutions have focused on writing-across-the-curriculum initiatives to reinforce the importance of writing in classes other than English. Computers and other technologies have been brought into the classroom. Additional laboratories have been created for use with classroom instruction. These changes are tied to the use of general education results

However, due to the individual nature of these changes, they are not as clearly documented as are the changes in curricula.

General education assessment has impacted student learning experiences and activities at 12 of the 14 public two-year institutions of higher education. The impact on student learning experience and activities has taken place in the addition of cultural activities brought to campus or arrangements being made with communities to give students better access to cultural opportunities. Classroom assignments are now also incorporating more cultural activities. Another student experience that has changed over the three cycles is that the general education assessment is now a graduation requirement at all of the 14 institutions.

There are also other noted influences of the general education assessment that relate to each of the areas covered in the research questions. A gradual change at most of the institutions is that they are becoming more pro-active as opposed to re-active in their approaches to the improvement of general education through the use of general education assessment results. Most institutions are focused toward improving general education for their institutional own goals. This can be seen in institutions wanting improvements although they have already received all performance funding points. It can also be seen in the statements of improvement measures in Standard Nine —Mission Specific Objectives and Standard Ten—Improvement Actions. Institutions are taking a broader approach to general education assessment through the use of multiple indicators and correlation of results from these indicators. Finally, participants stated the strong desire for a core of general education skills to be required of all students, regardless of the institutions they attend. This core would aid in the transfer and articulation process.

CHAPTER FIVE

SUMMARY, FINDINGS & CONCLUSIONS, and RECOMMENDATIONS

Summary

A number of beneficial changes at the public two-year institutions of higher education appear to be associated with Tennessee's Performance Funding program. The program was begun seventeen years ago when the THEC adopted a performance funding policy in October 1979 to be implemented in the fall 1979 appropriations cycle (Bogue & Troutt, 1980). This program was designed to allocate some funds based on the level at which institutions met certain performance criteria. General education assessment has been one of the performance criteria since the program's inception.

This study has described the influences of the assessment of general education for the Performance Funding Program on curriculum, instructional methods and strategies, and student learning experiences and actives in general education at public two-year institutions of higher education in Tennessee. The initial source of information for this study was a questionnaire which was sent to chief academic officers, performance funding coordinators, and selected faculty. Additionally, standardized interviews were conducted with 34 of the 50 participants in the study. Institutional catalogs and past performance funding reports were analyzed as a third source of data. By triangulating data sources, the researcher determined that the assessment of general education had resulted in changes in curriculum, instructional delivery strategies and methods, and student learning experiences and activities.

Findings & Conclusions

Using Multiple Indicators to Assess General Education

The twelfth principle in *Strong Foundations: Twelve Principles for Effective General Education Programs* (1994) encompasses the idea that "The assessment of course and program impact through a variety of methods results in more effective pedagogy, better courses, and more refined conceptions of requirements." (p.52). The study which resulted in the formulation of this principle examined institutions which employed multiple sources of data to assess students' knowledge in general education. (Association of American Colleges, 1994)

Most public two-year institutions are defining how general education is assessed with the use of multiple indicators. When asked on the questionnaire how general education was assessed on their campuses, participants responded that it was done by using the standardized instrument for assessment of general education for performance funding. They also replied that they used the Alumni Survey; the Enrolled student Survey; other student surveys; employer feedback; feedback from four-year institutions; focus groups; portfolio assessments; individual classroom assessments; departmental assessments; grade distributions; program reviews; and articulation agreements. The concept of using multiple indicators was reiterated throughout the interviews as the participants were asked to describe general education assessment at their institutions. Almost every participant began by listing the types of assessment that were done to measure general education skills. The participants also referred to the use of multiple indicators when they cited changes in curriculum, course content, instructional strategies, and student learning experiences. Additionally, there were citations throughout the performance funding reports that indicated the use of multiple indicators to support changes made in the above mentioned areas. The repeated mention of multiple indicators through questionnaire responses, performance funding reports, and interviews lead to the conclusion that the public two-year institutions in Tennessee have a multifaceted focus toward general education assessment.

Most institutions in this study use the combination of more than one indicator of weakness or strength in general education skills when making decisions that influence the general education program. Many times the performance funding reports said that changes were made due to similar findings of assessment results from several sources. Such convergent findings were the Alumni Survey and the general education assessment, the Enrolled Student Survey and the general education assessment, the Major Field test and the general education assessment, or the feedback from employers and the general education assessment. In using these multiple indicators of assessment, the institutions are not only able to base programming decisions on student outcomes but also on the basis of students' perception of their general education experience. Students' perceptions of their general education learning experiences are valued as are the student outcomes from standardized assessment instruments when decisions regarding programs are made. Being able to provide data from multiple indicators also aids in the likelihood that the data will be used. Banta and Borden (1994)state that it is difficult for decision makers not to pay attention to information that is reinforced from several data sources.

When the participants were asked what a proper assessment of general education at their institution should be, again the resounding reply was that there was a need for the use of multiple indicators. These respondents said one instrument could not completely measure general education.

Another theme within the responses was that the institutions should be able to have more control over the assessment methods and instruments that they used. The participants stated that they wanted to be able to measure what their mission and general education statement emphasized. There were three basic suggestions as to how this would be done. First was through locally developed instruments. Second was being given more choice about previously developed nationally marketed instruments. Third was the use of departmental exams.

Some participants also expressed concern about not being able to measure other parts of the students' lives which impact general education skills. These concerns included but were not limited to the number of times that students used the libraries or their e-mail accounts.

As is stated by Banta and Borden (1994) "Many roads lead to Rome. There is no best method for encouraging a department or institution to consider its purpose, goals, processes, and outcomes." (p. 100). However, "A clear purpose is essential to the success of a system of performance indicators" (p. 96). Sometimes there is a clash between the external agencies responsible for funding higher education and the faculty and administration of the individual campuses. The funding agencies are primarily interested in performance indicators as means of accountability. On the other hand, faculty and campus administrators are more interested in data collection efforts that will help them to improve "teaching and learning, overall student experiences, and administrative processes". (Banta & Borden, 1996 p.96). This debate over accountability and improvement was addressed in Tennessee in 1992 with the THEC's development of a statement of purpose for the Performance Funding Program. This statement addressed accountability and improvement (THEC, 1992). In moving from five performance indicators to ten performance indicators, the THEC added criteria that rewarded institutions based on campus goals (Banta & Borden, 1994).

Most institutions have grown beyond desiring the structure that was originally imposed upon them with the assessment of general education for the Performance Funding Program. This concept of moving from accepting and desiring structure to being more comfortable with their decision-making ability can be explained through the use of an analogy to student development theory. William Perry (1970) proposed that, as they develop, college students move through a scheme made up of seven positions. The first position is dualism. In his theory, students who are new to the college environment arrive in the first position needing high structure to help them distinguish between right and wrong. Authority represents what is right in the world. As students mature, they move through positions two and three and into position four, which represents multiplicity and a move toward relativism. The students are better able to understand their situation and are more comfortable making decisions within authority's realm. The final positions (seven, eight, and nine) of the development occur as the students make a commitment in some area of life (Perry, 1970).

When the Performance Funding Program was piloted in 1979-80, the nation as a whole was involved in another new phase of general education assessment, and the provision of structure by an authority was needed. As these Tennessee public two-year institutions have grown and matured over the past seventeen years, they have become more proficient in the understanding of general education assessment and knowing where the institution does well and where it needs improvement. In 1992 when the opportunity to change instruments occurred, it was welcomed by the institutions because it gave them the opportunity to use the knowledge they had gained about their general education program from ten years of assessment. They could utilize the information to make informed decisions while the state still imposed some control. Presently, using the analogy to student development theory, the participants are ready to move to the last positions of development and are ready to commit themselves by developing and/or selecting their own indicators of student learning in general education. Gaither, Nedwek and Neal (1994) point out that if incentives provided to higher education through the measurement of performance indicators are to make a difference the incentives must start at the campus level with faculty initiatives and garner faculty support.

Using General Education Assessment Results

A common concern that is voiced throughout the literature on assessment is that the assessment being done may not benefit the institutions where it is being done (Spangehl, 1987). The basis of this concern is referred to by Alexander Astin as the theory of utilization (Astin, 1991, p.128). At the core of Astin's theory is the principle of feedback. This principle states that if the assessment results are to be used, they must be fed back to the faculty and staff who are in a position to use the data. (Astin, 1991) Astin recognizes that there are issues of defining the proper audience, using proper communication, developing expertise in the faculty and staff, and combating resistance. It is when the "assessment expert" (i.e. a performance funding coordinator) fails to address these aspects of presenting assessment results that the breakdown in the utilization of results may begin. Astin also recognizes that there are "academic games" (Astin, 1991, p.133) which are played to avoid utilizing assessment results. Astin (1991) says that the best tactic to deal with these games is a diversion such as suggesting the implications of the findings.

Taking the idea of utilization further, Bogue & Saunders in *The Evidence for Quality* (1992) state that "Colleges and universities that care for their students are interested in ascertaining the impact they have on students and society and in improving that impact. Each educational decision we [institutions] make and assist our students to make is fundamentally an act of caring" (p.218). The decisions that are made based upon the interpretation of assessment results directly impact the environment of the college. Any action taken to change the college environment also directly or indirectly impacts the student learning experience.

Interview questions two and three focused directly on the analysis and use of the assessment results. Analysis of the past performance funding reports also provided examples of the analysis and use of the assessment results. These data sources show that at those institutions where the performance funding coordinator provides detailed analyses of general education assessment results in digestible terminology to the proper audiences at key intervals throughout the year there is more complete usage of assessment results by faculty, staff, and administration. The data sources also show that at those institutions where the performance funding coordinator analyzes results but does not target them to the proper audiences or provides them in difficult-to-understand terminology there is less usage of the assessment results.

This data analysis and usage was referred to in the findings as the "loop" that the results of the general education assessment follow. At institutions where there has been extensive analysis and dissemination of results to proper audiences, there has also been better usage of the results to improve general education. This is not to say that the results are not used at the institutions where the analysis is done less completely or the results are only presented to certain audiences. But the usage of the results is clearly better at institutions where the "loop" is completed and the information makes its way to all concerned audiences, faculty, staff, administration, and students.

The "loop" begins in the institutional research office or the performance funding coordinator's office. These offices on most campuses are the same. Here is where the actual assessment results are received from ACT or the College Base. At this point, the results from the general education assessment are analyzed by the performance funding coordinators or their designees — "assessment experts". Exactly how the results are analyzed varies greatly from institution to institution. Where the analysis emphasis is place is determined by strategic goals of the institution. Some institutions place emphasis on demographics, some on departmental results, and others on general education skill area results. There are a few institutions which use multiple forms of emphasis. Again, the more complete the analysis, the more complete the usage of results. From this point, the written report of the analysis is sent to one or more of the following places: a president's council, academic division chairs, department heads, individual faculty, or staff. The level of detail provided varies.

Some "assessment experts" prepare different reports for different audiences, filtering out much of the detail that can slow the understanding of the results. Others send out the actual reports that are returned from the testing services. It is then up to those who received the reports to utilize the results. At the institutions where the loop is completed, the reports are usually presented in large faculty and staff meetings. Then the president or Vice-President for Academic Affairs asks the departments for feedback on the results. This feedback is turned into goals for the strategic planning document. This document is then used by each division and/or department to plan group goals. Next, within each department, individual faculty or staff members use the departmental goals to help them write individual goals. These goals turn into actions that are taken to improve general education from the use of assessment results. Finally, the actions are measured through strategic planning reviews and are determined to be successful or not successful in meeting the campus goals.

The "loop" can be entered or exited at different points, by different institutions, and still be effective in the areas the information reaches. However, for general education assessment to have the maximum impact on general education, the results must be disseminated properly and become a part of the campuses' institutional effectiveness plans.

As is stated by the participants in the Project on Strong Foundations in General Education (1994), "Strong general education programs use assessment data in a systematic, ongoing, process of continuous improvement of the curriculum" (p.54).

A Common Core of General Education Competencies

Presently, the public two-year institutions of higher education in Tennessee are using the distributional approach to the general education curricula. The distributional approach includes a few required courses, a limited number of elective courses, and a large number of distribution courses in specific areas of general education (Blackburn & others, 1976; Carnegie Catalog Study, 1980). Tennessee institutions are not alone. Ninety percent of higher education institutions in the United States use the distributional approach (Hurtado, Astin, and Dey, 1991). However, a common core curriculum has been found to positively impact twenty-two student outcome variables by providing common experience for discussion and a common learning environment (Astin, 1993).

The desire for a common set of general education skills to be determined by the state higher education community permeated the open question at the end of the participant interviews and was interwoven in responses to other interview questions. It is not that the participants necessarily want a common statewide general education core of courses. Rather, they want a commonly agreed upon set of general education competencies that would be achieved by students enrolled in the lower-division courses during their collegiate education. How the students are taught or exposed to the common general education competencies would be an institutional decision. In the examination of the general education statements to determine the competencies that are emphasized as important, most colleges already agree upon a common set of general education competencies that include critical thinking, problem solving, communication, values, attitudes, functioning effectively in society, citizenship, reading, writing, math, speaking, listening, humanities appreciation, understanding sciences, technology awareness, and social and cultural diversity. These skills could provide a basis for the discussion among the institutions at the state level. They could begin to decide what the common core of competencies would be.

This desire for a common core of agreed-upon general education competencies has its roots in the transfer and articulation process in which students at the Tennessee two-year-institution are involved. Additionally, there is the underlying tone of concern about quality assurance. The quality assurance concern comes from the perspective that all students, no matter where they study undergraduate general education, should be accorded the same quality of education. The participants stated that they want the general education taken by their students to the four-year institutions to meet or exceed what the four-year students have received. As a result, each two-year institution is often driven to use the same general education competencies used by the four-year institution to which most of its graduates transfer. From the participants' viewpoint, these competencies do not always mesh with their institutions' philosophy about general education competencies.

An April 1996 news release by the THEC reported that each fall in Tennessee public higher education institutions, 10 percent of undergraduate students are transfers from other institutions. The transfer process is not always one way. In any one fall term, there may be two thirds as many "reverse" transfers from the four-year to the two-year as there are "forward" transfers from the two-year to the four-year. Of the 3, 597 students who transferred from a two-year public institution to a public university in fall 1995, only 893 had received associate degrees in the previous year. Among the recommendations of The Committee on Articulation conducting the study was

> that the two public governing boards and the Tennessee Independent Colleges and Universities work together to achieve greater understanding of general education courses and programs and that they seek to establish agreements by which broad areas of general education courses can be transferred without loss of credit or repetition of coursework. (p.4)

With this number of students being involved in the transfer process each year, it will be beneficial in the future for the state higher education system to discuss ways to better assist students with the process.

The participants' idea to open discussion at the state level closely resembles the "academic approach" to articulation presented by Palmer and Eaton (1991, p.39). Using this approach, articulation is undertaken at the point of course development so that curriculum content and performance expectations are understood by both institutions (Palmer and Eaton, 1991). In this situation,

> Faculty collaboration is the key means whereby two- and four-year schools can rethink their respective roles in serving the transfer student. Through this collaboration, articulation discussions that traditionally focus on syllabi and credits evolve into substantive discussions about faculty expectations for students and about the academic task faculty expect students to perform. Articulation

> agreements can, in fact, be replaced by educational partnerships that provide students with curricular paths built on identified intellectual and skills competencies rather then on tentative lists of course equivalencies (Palmer & Eaton, 1991, p. 39).

This is not to propose a complete restructuring of the way the articulation and transfer presently function in Tennessee. However, it does seem that both "forward" and "backward" transfer students could benefit from communication at the state level between the public two-year and four-year institutions. The discussion should begin to determine the common core of competencies upon which the participants agree.

In a monograph published by the Association of American Colleges, the participants in the Project on Strong Foundations for General Education (1994) state that

> Strong general education programs are, consequently, sources of disequilibrium within their institutions.... Strong general education programs are similarly transformative in affording faculty opportunities to transcend narrow disciplinary loyalties in the pursuit of common goals. Common purposes and goals are forged through ongoing and sometimes difficult discussions among colleagues across disciplines. (p.55).

It is this type of open, transformative discussion that the researcher is suggesting take place across the state among faculty, staff, and administration at the community colleges and four-year institutions.

Other states, such as Virginia, have approached articulation from the curricular standpoint. Community colleges and four-year colleges have established transferable general education modules that represent system-wide expectations for lower-division achievement. Such a model has been suggested by Virginia's State Board for Community Colleges and Virginia's State Council for Higher Education. The Virginia module consists of 35 semester hours of general education to be offered in Virginia's Community College System and accepted for credit by the state's four-year colleges (Virginia State Council of Higher Education and the Virginia State Department of Community Colleges, 1991). The Illinois Board of Higher Education also has an initiative involving faculty from community and four-year colleges in the development of model lower-division curricula. A transferable general education curriculum defines the purpose of general education, and specifies 37-41 semester hours of courses in five areas — communication, math-science, humanities, and fine arts, and social sciences. It also states the competencies students should demonstrate. This plan was endorsed by the Illinois Board of Higher Education and the Illinois Community College Board in 1994 (Illinois Board of Higher Education, 1994).

Through the Performance Funding Program, Tennessee has the longest running assessment for improvement program in the nation. The assessment of general education that has always been a part of the Performance Funding Program has resulted in changes in the curriculum, in instructional delivery strategies and methods, and in student learning experiences and activities at the public two-year institutions of higher education in Tennessee. The changes resulting from this program would not have come about as quickly and possibly not at all if it were not for the mandatory assessment of the general education knowledge and skills of students in the state. The comments made by the participants demonstrate that there is still a desire to assess general education across the public two-year institutions in the state. The participants say, for the most part, that they would be assessing general education at this point without any state mandates. The participants in this study believe that their institutions have used the results of general education assessment to improve general education. They have also indicated the public two-year institutions' desire to have more control over the instruments they use to assess general education. Furthermore, they indicate the institutions' desire that the state take action to develop a common core of competencies in general education so that all students will have been provided the opportunity to gain the same general education competencies by the time they complete the first two year on college. They express their conviction that students should be required to demonstrate the same general education competencies whether enrolled in the lower-division courses at two-year institutions or four-year institutions.

Recommendations

For Practice

The Performance Funding Program has been influential in improving general education in Tennessee over the past seventeen years by providing strong incentives in the assessment of general education. The public two-year institutions in Tennessee have amassed a large amount of knowledge about the general education competencies of their students at graduation. As a result, the institutions are ready to further examine the students' general education skills as they relate to areas of interest to specific institutions. In the next cycle of performance funding that will begin in 1997, it could be useful to insert some incentive for the institutions in either Standard One — General Education or Standard Ten — Improvement Actions that would enable them to examine different methods and instruments for assessing the students' general education competencies. This would also make possible the use of additional or alternative forms of assessment every other year or the piloting of locally developed or nationally marketed assessments.

Regarding the analysis and the use of assessment results, analysis is the area where there is the greatest discrepancy between the institutions. It is evident that with more in-depth analysis and better dissemination of knowledge there is more effective utilization of assessment results. It would be beneficial to provide some type of forum in which the institutions could showcase the ways in which they analyze data to best utilize the assessment results from the multiple indicators of general education that are available. An alternative would be for the state to provide training by staff at the testing services to explain how best to analyze and utilize the data received from the assessments.

Finally, with the number of students transferring both "backwards" and "forwards" in Tennessee, a discussion at the state level on the general education competencies that students will gain from lower-division courses is of paramount importance. The determination of the general education competencies would not only benefit the articulation transfer student; it would also benefit students who transfer without graduating and/or change their minds at the "last minute." It would do this by not requiring them to repeat courses in the same competency areas because the courses they have already taken are not "equivalent". The determination of general education competencies would also ease the transition for those students who have student development issues at four-year institutions and wish to go to smaller community colleges without needing to worry about the credits' transferring.

For Further Research

This study established that the public two-year institutions in Tennessee have in the past seventeen years utilized the results of the general education assessment for the Performance Funding Program to influence changes in curriculum, instructional delivery strategies and methods, and student learning experiences and activities. The institutions in Tennessee are about to undergo a review of their general education programs in the Spring of 1997 as part of the Performance Funding Program's Standard Ten. Therefore, data gathering for a companion study should be begun prior to that time at the public four-year institutions so that a more complete understanding of general education assessment for the Performance Funding Program will be documented prior to any program review. Due to the general education program review, a follow-up study should be performed early in the next Performance Funding Program cycle to determine what the institutions have learned about themselves from the program review and how they have utilized that information for the improvement of general education and general education assessment. Regarding the issue of common general education competencies, there is still a question as to how different general education is at a community college as opposed to general education at a four-year institution. A study should be conducted on four-year institution, junior level students to determine the general education skills that students who transfer to four-year institutions as juniors possess in comparison to those possessed by native students at four-year institutions in Tennessee.

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APPENDICES

APPENDIX A

May 1, 1996

«Title». «FirstName» «LastName»
«JobTitle»
«Company»
«Address1»
«City», «State» «PostalCode»

Dear «Title». «LastName»:

During the past thirteen years, public institutions of higher education in Tennessee have been engaged in the assessment of general education of their students under the Performance Funding Project. As a doctoral student in higher education at the University of Tennessee, I am interested in the effect that the general education assessment has had on general education at public two-year institutions of higher education in Tennessee. As part of my research, I am conducting a short survey of chief academic officers, performance funding coordinators, and faculty members who are involved with general education decisions or performance funding at the fourteen public two-year institutions.

By participating in this study, you will be contributing to a better understanding of how general education assessment is used in public two-year institutions. The outcomes from this research have the potential to inform decisions that are made regarding assessment policy and practice.

I am requesting that you participate in this study by completing the attached survey. Your responses will not be identified with you or your institution. Responses will be analyzed as a group. Following the data analysis of the survey, I will contact you to set up an individual interview. As with the questionnaire data, your interview responses will not be identified with you or your institution.

Participation in the study is voluntary and requires your consent. In addition to the survey, you will also find a consent form enclosed. Please return the consent form in the separate envelope provided. Please return the survey and the consent form no later than June 3, 1996.

If you have questions regarding the research, I can be reached at 423-585-6806 or 1-800-225-4770 (work). Each participating institution will receive a copy of the findings of the study. I will appreciate your participation in this research.

Sincerely,

Lori Morrell,
Candidate for Ed. D
University of Tennessee

Tennessee Board of Regents
1415 Murfreesboro Road - Suite 350 - Nashville, Tennessee 37217-2833
(615) 366-4400 FAX (615) 366-4464

COPY

MEMORANDUM

TO: All Chief Academic Officers

FROM: D. Peter Consacro

SUBJECT: Research on General Education and Performance Funding

DATE: April 1, 1996

I am writing to ask your assistance and cooperation in a research project that is under way on the general education program at two-year institutions. The research is being conducted by Ms. Lori Morrell of Walters State Community College as part of her requirements for the doctoral degree which she is pursuing at the University of Tennessee at Knoxville. I will appreciate your participation in this project and any assistance that you can give Ms. Morrell.

The proposed research, I hasten to add, is both important and timely. Not only may her findings be useful to your individual institutions but they may also be very helpful to the System as we begin the work of revising and redefining the Performance Funding standards for the next five-year cycle.

Ms. Morrell is looking into the effect that Performance Funding assessment may have had on the general education programs of our institutions. To collect the needed information, Ms. Morrell will first need to acquire a list of the faculty on your campus who are on the general education committee or the equivalent. She will be contacting you for this information. She then plans to send each academic officer, performance funding coordinator and some faculty from the list that you provide a brief questionnaire. Later, after the data are compiled and processed, Ms. Morrell plans to schedule a follow-up interview with you and with some of your staff (Performance Funding coordinator, some faculty, etc.). Obviously, your participation is voluntary but I do urge you to participate fully and candidly.

Thank you in advance for your assistance in this matter.

DPC:jah

cc: Ms. Lori Morrell
Professor Grady Bogue

Austin Peay State University • East Tennessee State University • Middle Tennessee State University • Tennessee State University
Tennessee Technological University • University of Memphis • Chattanooga State Technical Community College
Cleveland State Community College • Columbia State Community College • Dyersburg State Community College
Jackson State Community College • Motlow State Community College • Pellissippi State Technical Community College
Roane State Community College • Shelby State Community College • Volunteer State Community College
Walters State Community College • Nashville State Technical Institute • Northeast State Technical Community College
State Technical Institute at Memphis • The Tennessee Technology Centers

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CONSENT FORM

Project Title: "Acting on the Possible While Awaiting Perfection": The Effect of General Education Assessment at Public Two-Year Institutions of Higher Education in Tennessee

The purpose of this research is to determine the effect of the assessment of general education for the Performance Funding Project on general education at public two-year institutions of higher education in Tennessee. Your participation in this research will involve responding to the enclosed questionnaire, which will take about 15-20 minutes, and a follow-up interview that will last about one hour.

This study will determine the effect the general education assessment for the Performance Funding Project has had on general education at the public two-year institutions of higher education in Tennessee. This study may have no personal benefits for you. However, participation in the study may benefit higher education as a whole by assisting in the gathering of this important information. Findings from this research have the potential to impact future policy and practice in general education in higher education in Tennessee. Participants in this study will not be exposed to risk that are greater than that of daily life.

As a participant, your identity and that of the institution you represent will be kept confidential. Confidentiality of your responses to the questionnaire will be maintained by your returning the consent form in a separate return envelope from the questionnaire. Confidentiality of the material from the interview will be maintained by limiting access to the interview information to the researcher and one secretary. The secretary will transcribe the interview tapes only after she has signed an agreement of confidentiality. The results from the questionnaire as well as those from the interviews will be reported in summary form. The signed consent forms will be stored in a locked filing cabinet in the Leadership Studies Unit Office at the University of Tennessee. Questionnaires, interview tapes, and transcriptions will be stored in a locked cabinet, while not being interpreted or transcribed, at the researchers residence. Audio tapes will be erased after transcription is complete. Materials from this research will be maintained for a period of three years after the conclusion of the study. After this time, they will be destroyed. Materials from this research will not be used for any other purpose.

Your participation in this study is voluntary. Choosing not to participate will have no adverse effects. You may withdraw at any point during the study without penalty. If you have questions about the research, either now or later, please contact Lori C. Morrell, Walter State Community College, Morristown, TN 37813-6899, or call (423) 585-6808 or 1-800-225-4770.

****

I have read and understood the explanation of this study and agree to participate.

______________________________ Date______________

Name (Please print.)

____

Signature

* Please maintain one copy of this form for your records.

CONSENT FORM

Project Title: "Acting on the Possible While Awaiting Perfection": The Effect of General Education Assessment at Public Two-Year Institutions of Higher Education in Tennessee

The purpose of this research is to determine the effect of the assessment of general education for the Performance Funding Project on general education at public two-year institutions of higher education in Tennessee. Your participation in this research will involve responding to the enclosed questionnaire, which will take about 15-20 minutes, and a follow-up interview that will last about one hour.

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****

I have read and understood the explanation of this study and agree to participate.

______________________________ Date______________

Name (Please print.)

____

Signature

* Please maintain one copy of this form for your records.

Survey on General Education Assessment

Please respond to questions 1-9 by marking the appropriate box or boxes.

1. Have you been involved with general education or general education assessment in Tennessee?

   ☐ Yes   Number of years ____

   If yes, describe your involvement ______________________________
   ____

   ☐ No

2. Have you been involved with the Performance Funding Project?

   ☐ Yes   Number of years ____

   ☐ No

If you have answered no to both questions 1 and 2, please stop here and return the unanswered questionnaire.

* * *

3. Does your institution have formally stated goals for general education?

   ☐ Yes   ☐ No

   If yes, where are these goals articulated? Mark all that apply.

   ☐ Mission Statement
   ☐ General Education Statement in college catalog
   ☐ Student Handbook
   ☐ Faculty Handbook
   ☐ Other documents: ______________________________
   ____

4. Is the general education assessment process used by your institution appropriate to determine if your institution is achieving the goals it has set for general education?

   ☐ Yes

   ☐ No If no, please explain what you think should be added, deleted or modified.

   ____
   ____

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5. Which of the following student outcomes is your institution seeking to assess with general education assessment? Mark all that apply.

☐ Reading skills
☐ Writing skills
☐ Computational skills
☐ Critical thinking skills
☐ Problem solving skills
☐ Interpersonal skills
☐ Values development
☐ Other: ______________________________

____

6. What student data has your institution gained from the process of general education assessment? Mark all that apply.

☐ knowledge in reading
☐ knowledge in writing
☐ knowledge in computation
☐ skills in critical thinking
☐ skills in problem solving
☐ skills in interpersonal communication
☐ values about the world around them
☐ the match between our institutions' general education goals and the students' achievements toward those goals
☐ Other: ______________________________

____

7. Which of the following reasons describes why your institution is involved in the process of general education assessment? Mark all that apply.

☐ Requirement for the Performance Funding Program
☐ Requirement for Southern Association Accreditation
☐ Institutional improvement of general education
☐ To set goals for general education
☐ To determine if the assessment that is used for general education is appropriate to our institutional goals
☐ To evaluate whether our students are achieving the goals we have set for general education
☐ Other: ______________________________

____

8. What methods has your institution used to assess general education? Mark all that apply.

☐ Standardized test (College Base, ACT COMP, Academic Profile, College Assessment of Academic Proficiency, other)
☐ Locally developed instruments
☐ Student Portfolios
☐ Performance assessments (projects, recitals, publications, presentations, practical experiences)
☐ Qualitative assessments (focus groups, interviews, journals)
☐ Employer feedback
☐ Feedback from four year institutions
☐ Other: ______________________________

9. Is the general education assessment performed at your institution a requirement for graduation?

☐ Yes ☐ No

* * *

Please respond to questions 10-20 by circling the number that best represents your opinion.
Where 1 = major impact, 2 = little impact, 3 = some impact, 4 = significant impact, and 5 = major impact.

How much of an impact has the assessment of general education had on:

	No Impact	Little Impact	Some Impact	Significant Impact	Major Impact
10. the general education curriculum design?	1	2	3	4	5
11. general education course content?	1	2	3	4	5
12. general education instructional delivery methods?	1	2	3	4	5
13. general education instructional strategies?	1	2	3	4	5
14. student learning in general education?	1	2	3	4	5

	No Impact	Little Impact	Some Impact	Significant Impact	Major Impact
15. student experiences and activities programming to enhance general education?	1	2	3	4	5
16. counseling and advising students about general education?	1	2	3	4	5
17. teaching assignments in general education?	1	2	3	4	5
18. graduation of individual students?	1	2	3	4	5
19. the referral of individual students for remediation?	1	2	3	4	5
20. the overall quality of general education?	1	2	3	4	5

Open question: Is there any information that you would like to address about the assessment of general education at your institution that has not been addressed in the survey? If so, please use this space to do so now. Use the back of this sheet if necessary.

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APPENDIX B

Interview Protocol

Thank you for agreeing to talk to me today about general education assessment at your college. I would like to tape this interview. May I have your permission to do so?

1. Describe general education assessment at your institution.

   Probes: Tell me about one positive event or experience that occurred as a result of general education assessment.

   Tell me about one negative event or experience that occurred as a result of general education assessment.

2. How are the data from general education assessment analyzed?

3. How are the results of the general education assessment used?

4. What effect has general education assessment had on the curriculum requirements?

5. What effect has general education assessment had on course content?

6. How has general education assessment effected the way general education is taught?

7. Tell me about the relationship you see between general education assessment and decisions that are made concerning general education.

8. 77% of the respondents to question #14 on the questionnaire said that general education assessment for Performance Funding has had some to a significant impact on student learning in general education. What information sources would inform these responses? Describe the relationship you see between general education assessment and student learning.

9. Describe the linkage between the results of the general education assessment and student services programming.

The Following are questions related to the questionnaire

10. As a follow through for question #4 on the questionnaire, several respondents either said that the general education assessment being used was not appropriate to determine if the institution was achieving goals set for general education or the response of yes was qualified with restrictions, in your opinion what would be an appropriate assessment of general education at your institution?

11. Question #7 on the questionnaire asked the reasons for being involved in the assessment of general education. The three top responses given in order were (1) Performance Funding, (2) SACS, and (3) for evaluating whether our students are achieving the goals we have set for general education. In your opinion, would your institution be involved in general education assessment if it were not a requirement for Performance Funding and SACS accreditation?

12. In responding to question #9 on the questionnaire that asked if general education assessment was a graduation requirement, how did you interpret that question? And, how does your college use the assessment as a graduation requirement?

13. In response to question # 19 on the questionnaire, 40 % of the respondents said that the general education assessment done for Performance Funding had at least some impact on the referral of individual students for remediation. Is this the case at your college; and if so, how does that process work?

If there is any additional information that you would like to provide in addition to the format of this interview, please do so. I am interested in any reports or documentation that is pertinent to the use of general education assessment results.

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APPENDIX C

Interview Contact Summary Sheet

Contact Type: Visit ________ Site: ____________________________
Participant Code____________ Date: ____________________________

What were the main themes, issues, problems or questions that struck you during this contact?

Summary information from each of the questions asked:

Information	**RQ/CODE**
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

BACK OF FORM Follow-up Questions to the Questionnaire	RQ/CODE
10.	
11.	
12.	
13.	
Open Question	

Anything else that struck you as interesting or important about this contact?

What questions did this contact raise that you need to follow up on?

APPENDIX D

Document Summary Form

Site______________ Date________

Document Name______________________

Page numbers of document reviewed:______

____

Research question(s) document relates to:

____

Accounting Scheme:
(SC) Setting\context
(D) Definition of situation
(WT) Ways of thinking
(P) Process
(A) Activity
(E) Event
(S) Strategy

Code Column
RQ# Code

Summary of contents:

Significance of document:

VITA

Lori Collette Morrell was born in Greeneville, TN on September 9, 1966. She graduated from Greeneville High School in June, 1984. She entered the University of Tennessee, Knoxville in the Fall of 1984. She received a Bachelor of Arts in Academic Psychology in June, 1988. She began working toward her Master's degree in College Student Personnel at the University of Tennessee, Knoxville in August, 1988. She received the Master of Science in College Student Personnel in May of 1990. In July 1990, she was employed as an academic counselor for Walters State Community College. After working as an academic counselor for a year, she reentered the University of Tennessee, Knoxville to begin work toward her Doctor of Education in Leadership Studies. As she progressed through her doctoral program, she continued work as an academic counselor and took on the responsibilities of Coordinator of Freshman Orientation at Walters State Community College. The doctoral degree was received December, 1996.